Proposal to distinguish HER2-low from HER2-normal breast cancer by in situ hybridisation

Yen-Ying Chen,[1,2,3] Ching-Fen Yang,[3,4] Chih-Yi Hsu [3,4,5]

► Additional supplemental material is published online only. To view, please visit the journal online (http://dx.doi.org/10.1136/jcp-2022-208444).

[1]Department of Pathology, Shuang Ho Hospital, Taipei Medical University, Taipei, Taiwan
[2]Department of Pathology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan
[3]School of Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan
[4]Department of Pathology and Laboratory Medicine, Taipei Veterans General Hospital, Taipei, Taiwan
[5]College of Nursing, National Taipei University of Nursing and Health Sciences, Taipei, Taiwan

Correspondence to
Dr Chih-Yi Hsu, Pathology and Laboratory Medicine, Taipei Veterans General Hospital, Taipei, Taiwan; cyhsu@vghtpe.gov.tw

Received 8 June 2022
Accepted 21 August 2022
Published Online First 1 September 2022

Check for updates

To cite: Chen Y-Y, Yang C-F, Hsu C-Y. *J Clin Pathol* 2023;**76**:753–756.

ABSTRACT

Aims 'HER2-low' breast cancer is an emerging issue as the clinical trials for anti-HER2 antibody–drug conjugates (trastuzumab deruxtecan) are making progress. A reliable method to identify HER2-low cancers is needed. This study aimed to evaluate immunohistochemistry (IHC) and in situ hybridisation (ISH) in detecting HER2-low status.

Methods We evaluated the HER2 ISH data grouped by the IHC consensus in proficiency tests (PTs), and compared the HER2 ISH results between HER2 IHC scored 0 (IHC-0) and IHC scored 1+ (IHC-1+) tumours from in-house tissue microarrays (TMAs). Since benign/normal glands have HER2 expression and ideally should not be affected by targeted therapy, we evaluated HER2 ISH results in peritumoural benign glands of 52 breast cancers as reference values.

Results None of the 565 tissue cores in PTs achieved an 80% participant agreement of IHC-1+. In PTs and in-house TMAs, *HER2* signals of the IHC-1+cores (median: 2.6 and 2.0, respectively) were significantly higher than those of IHC-0 cores (median: 2.0 and 1.7, respectively). But the ranges of *HER2* signals had a considerable overlap between IHC-1+and IHC-0 cores. The *HER2* signals and *HER2*:CEP17 ratios of peritumoural benign glands exhibited normal distributions, and their upper bounds of the 95% reference intervals were 2.10 and 1.30, respectively.

Conclusions Current HER2 testing algorithms are unsatisfactory in detecting HER2-low cases. Using ISH to detect tumour with *HER2* signals and *HER2*:CEP17 ratio higher than the upper bound of the benign glands can be an alternative method.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ HER2-low breast cancer (defined as IHC scored 1+ (IHC-1+) or IHC scored 2+ (IHC-2+) with a negative in situ hybridisation (ISH) result) is an emerging issue as the clinical trials for anti-HER2 antibody–drug conjugates (trastuzumab deruxtecan) are making progress. IHC-1+ and IHC scored 0 (IHC-0) are traditionally considered HER2-negative, but distinguishing IHC-1+ from IHC-0 is now becoming important.

WHAT THIS STUDY ADDS

⇒ *HER2* signals of IHC-1+ were higher than those of IHC-0 cores, but their ranges of *HER2* signals had a big overlap. Since benign/normal glands have HER2 expression and ideally should not be affected by targeted therapy, tumour tissue with HER2 ISH results higher than the upper limits of the *HER2* signals (2.10) and *HER2*:CEP17 ratio (1.30) in benign glands can be regarded as HER2-low status.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Current HER2 testing algorithms are unsatisfactory in detecting HER2-low cases. Using ISH to detect tumour with *HER2* signals and *HER2*:CEP17 ratio higher than the upper bound of the benign glands can be an alternative method.

INTRODUCTION

Breast cancer was the most commonly diagnosed cancer and the fifth leading cause of cancer-related death worldwide in 2020.[1] For treatment purposes, breast cancer can be classified into various subtypes based on oestrogen receptor (ER), progesterone receptor (PR) and human epidermal growth factor receptor 2 (HER2) statuses, which are usually assessed through immunohistochemistry (IHC) and/or in situ hybridisation (ISH). Such biomarker-defined subtypes as the luminal (ER-positive/PR-positive), HER2 (HER2-positive) and triple-negative (ER-negative, PR-negative and HER2-negative) subtypes have different expected outcomes and responses to endocrine and HER2-directed therapy. Guidelines recommend the use of HER2-targeted therapy in HER2-positive breast cancers (defined as a HER2 IHC score of 3+ (IHC-3+) or a score of 2+ (IHC-2+) with a positive ISH result).[2,3] For HER2-negative breast cancers, however, HER2-targeted therapy has failed to show survival benefits and is therefore not recommended.[4,5]

According to the 2018 American Society of Clinical Oncology (ASCO)/College of American Pathologists (CAP) guideline, IHC staining for HER2 is scored as 0, 1+, 2+ or 3+. An IHC-3+ is considered HER2-positive, whereas an IHC-2+ indicates HER2-equivocal and requires an ISH reflex test (of the same specimen) or a new IHC or ISH test (with a new specimen, if available). IHC scored 1+ (IHC-1+) and IHC scored 0 (IHC-0) are considered HER2-negative, and distinguishing IHC-1+ from IHC-0 has no current clinical impact because their treatment algorithms are identical. Extensive efforts have been made to establish criteria for distinguishing HER2 positivity and negativity in cases of equivocal IHC or ISH results.[6,7] By contrast, little attention has been paid to the difference between IHC-1+ and IHC-0, and whether the two can be reliably distinguished is still debatable.[8]

A novel HER2-targeting agent, trastuzumab deruxtecan (T-DXd, formerly DS-8201a), has demonstrated effects on HER2-negative breast cancer.[4 9] T-DXd is a HER2-targeting antibody–drug conjugate with a topoisomerase I inhibitor payload designed to be delivered into HER2-expressing cancer cells. It obtained US Food and Drug Administration (FDA) approval for the treatment of HER2-positive advanced breast cancer. In clinical trials, T-DXd demonstrated antitumour activity against HER2-low (defined as IHC-1+ or IHC-2+ with a negative ISH result) breast cancer.[4 9] Other clinical trials (DESTINY-Breast 06, phase III, NCT04494425, and DESTINY-Breast 08, phase Ib, NCT04556773) of T-DXd for treating HER2-low advanced breast cancer are ongoing. Confirmation by phase III trials of the effect may indicate the suitability of T-DXd as a treatment option for HER2-low advanced breast cancer,[9] necessitating a reliable method to identify HER2-low cancers from those currently considered HER2-negative. The boundary between HER2 IHC-0 and IHC-1+ must be clarified for distinction. However, some concerns exist in the HER2 IHC results. A multicentre study revealed concordance rates for HER2 IHC-0 and IHC-1+ between study centres and a reference centre of 61.5% and 60%, respectively, which were lower than that for scores of 3+ (81%).[10]

Because the staining and interpretation methods may affect the results of IHC, an alternative test is required to confirm HER2-low status in cases yielding ambiguous IHC results. For HER2 IHC-2+, ISH can be used as a second test to determine whether the results are HER2-positive or HER2-negative. However, for IHC-0 or IHC-1+, no ISH reference criteria of HER2-low have been established. Because *HER2* gene amplification is correlated with RNA and protein levels,[11 12] we assumed that the *HER2* gene copy number determined through ISH could be used to identify HER2-low tumours. Therefore, our study aimed to evaluate using IHC and ISH to detect HER2-low cases.

MATERIALS AND METHODS

HER2-negative samples of proficiency tests (PTs)

As the status of HER2-low is evaluated by IHC in the clinical trials for T-DXd, we evaluated the HER2 ISH data grouped by the IHC consensus in PTs. We collected the results of two PTs for HER2 IHC that we participated in, namely, (1) CAP proficiency surveys for HER2 expression in breast cancer (2014 HER2-B–2021 HER2-B) and (2) Taiwan Society of Pathology HER2 IHC Proficiency Test (2013–2021). The PTs were conducted using tissue microarrays (TMAs), and the evaluation of the tissue cores in individual TMA was based on the consensus if they met a threshold of 80% participant agreement of the negative (IHC-0 and IHC-1+) or the positive (IHC-3+) interpretations. HER2 ISH results of the tissue cores were also provided by the PT providers as additional references.

In-house HER2-negative samples

We reviewed the ISH results of six breast carcinoma TMAs used for HER2 assay validation, which contained 27 IHC-0 and 16 IHC-1+ cores. HER2 IHC testing was performed using the FDA-approved Ventana PATHWAY 4B5 monoclonal antibody (prediluted; Ventana Medical Systems, Tucson, Arizona, USA) on a BenchMark ULTRA system (Ventana). HER2 IHC staining results were reviewed by a board-certified pathologist (C-YH) using the 2018 ASCO/CAP HER2 guidelines. The ISH testing was performed using fluorescence ISH (PathVysion HER2 DNA Probe Kit; Abbott Laboratories, Des Plaines, Illinois, USA).

Peritumoural benign glands

Benign/normal glands have HER2 expression (HER2-normal)[13] and ideally should not be affected by targeted therapy. HER2 ISH results in peritumoural benign glands of 52 breast cancers were evaluated as reference values.

Table 1 Distribution of *HER2* signals of ISH and IHC scores by participants

IHC score		*HER2* signals	
% of participants	N (%)	Median (IQR)	Range
	565 (100)	2.5 (1.8–5.9)	0.8–54.0
IHC-0			
<50%	233 (41.2)	7.3 (2.8–11.9)	1.0–54.0
50%–66%	48 (8.5)	2.2 (1.7–2.9)	1.0–5.1
>66% to <80%	41 (7.3)	2.0 (1.6–2.9)	1.0–5.5
≥80%	243 (43.0)	2.0 (1.6–2.6)	0.8–4.9
IHC-1+			
<50%	537 (95.0)	2.4 (1.8–6.9)	0.8–54.0
50%–66%	27 (4.8)	2.6 (2.0–2.6)	1.2–3.8
>66% to <80%	1 (0.2)	2.6	2.6–2.6

IHC, immunohistochemistry; ISH, in situ hybridisation.

Statistical analysis

Differences of *HER2* signals and *HER2*:CEP17 ratios between those scored IHC-1+ and IHC-0 were compared using the Mann-Whitney U test. The Shapiro-Wilk test was used to check if *HER2* signals and *HER2*:CEP17 ratios followed a normal distribution. The upper bound of 95% reference interval (mean+1.65×SD) was selected as the cut-off value. P values were derived from two-tailed tests, and $p<0.05$ was considered statistically significant.

RESULTS

IHC and ISH results of HER2-negative samples in PTs

In the two PTs for HER2 IHC, none of the 565 tissue cores achieved an 80% participant agreement of IHC-1+, but 43% (243/565) of the tissue cores achieved an 80% agreement of IHC-0. Because *HER2* signals were not significantly different among the tissue cores with 50%–66%, >66%–80% and ≥80% agreement among responders for each IHC score (table 1), a criterion of >50% participant agreement was selected for the following analyses. In the cores that reached >50% agreement, *HER2* signals of the IHC-1+ cores (median 2.6) were significantly higher than those of the IHC-0 cores (median 2.0, $p=0.043$). The median values of *HER2*:CEP17 ratio of IHC-1+ cores (median 1.2) was also higher than that of IHC-0 (median 1.1), but they did not differ significantly ($p=0.322$, table 2). The ranges of *HER2* signals and ranges of *HER2*:CEP17 ratios showed a substantial overlap between IHC-1+ and IHC-0 cores.

ISH results of in-house HER2-negative samples

In the in-house TMAs used for HER2 assay validation, *HER2* signals and *HER2*:CEP17 ratios of the IHC-1+ cores (median 2.0 and 1.2, respectively) were significantly higher than those of the IHC-0 ones (median 1.7 and 1.1, $p=0.026$ and 0.003, respectively; table 2). However, the ranges of *HER2* signals and those of *HER2*:CEP17 ratios had a considerable overlap between IHC-1+ and IHC-0 cores.

ISH results of peritumoural benign glands

Both *HER2* signals and *HER2*:CEP17 ratios of peritumoural benign glands exhibited normal distributions (Shapiro–Wilk *W* test, $p>0.05$; table 2). The upper bounds of the 95% reference

Table 2 Distribution of *HER2* signals and *HER2*:CEP17 ratio

	N	*HER2* signals	P value*	*HER2*:CEP17 ratio	P value*
Proficiency test		Median (IQR, range)	***0.043***	Median (IQR, range)	0.322
IHC-0	332	2.0 (1.7–2.6, 0.8–5.5)		1.1 (1.0–1.2, 0.5–3.4)	
IHC-1+	27	2.6 (2.0–2.6, 1.2–3.8)		1.2 (1.1–1.2, 0.6–2.5)	
In-house TMA		Median (IQR, range)	***0.026***	Median (IQR, range)	***0.003***
IHC-0	27	1.7 (1.5–2.1, 1.3–3.1)		1.1 (1.0–1.2, 0.8–1.4)	
IHC-1+	16	2.0 (1.8–2.6, 1.5–3.8)		1.2 (1.1–1.4, 0.9–2.5)	
Benign glands		Mean±SD		Mean±SD	
	52	1.85±0.15		1.15±0.09	

*Mann-Whitney U test. Bold and italicised values denote statistical significance.
TMA tissue microarray.IHC, immunohistochemistry.

interval of *HER2* signals and *HER2*:CEP17 ratio in benign glands were 2.10 and 1.30, respectively.

Correlation of IHC results and ISH categories using upper bounds of HER2-normal

Figure 1 depicts the distribution of *HER2* signals and *HER2*:CEP17 ratio of benign glands, IHC-0 and IHC-1+ cases. We used the upper limits of benign glands to classify the tissue cores in the PTs and in-house TMAs. Cores with *HER2* signals of >2.10 and *HER2*:CEP17 ratio of >1.30 were classified as HER2-low, and those with *HER2* signals of ≤2.10 or *HER2*:CEP17 ratio of ≤1.30 were classified as HER2-normal. Table 3 lists the correlation between IHC results and ISH categories. Discordance between IHC and ISH results occurred in 14.5% (52/359) and 30.2% (13/43) of the tissue cores in the PTs and in-house TMAs, respectively. Overall, 8.1% (29/359) of the IHC-0 cores were classified as HER2-low by ISH, and 83.7% (36/43) of the IHC-1+ cores were categorised as HER2-normal.

DISCUSSION

HER2 IHC had a low interlaboratory agreement of IHC-1+ in PTs. None of the 565 tissue cores achieved a consensus with agreement among 80% of participants. A Yale University-based study reported the concordant rate between IHC-0 and IHC-1+ was only 26% when pathologists interpreted a set of scanned slides.[8] Besides interpretation, staining methods might also cause interlaboratory variation. A previous study reported different staining results for the same tumour with various FDA-approved HER2 testing kits, with the HercepTest (Dako, Glostrup, Denmark) indicating IHC-0 and the Ventana PATHWAY HER2 (4B5) antibody test indicating IHC-1+.[14]

Current ASCO/CAP HER2 guideline recommends that assay validation requires 20 negative and 20 positive samples for FDA-approved assays and 40 negative and 40 positive samples for laboratory-developed tests.[7] However, the validation recommendations only confirmed a high concordance between HER2-positive and HER2-negative results. We switched immunostaining platforms from the validated Leica system, which uses the A0485 antibody (Dako), to the Roche system, which uses the FDA-approved Ventana PATHWAY 4B5 antibody (Ventana Medical Systems), and completed validation of this major change using 40 HER2-positive cases and 40 HER2-negative cases. The percentage of HER2-negative (IHC-1+ and IHC-0) cases slightly increased from 67% to 70% in the following period. The percentage of IHC-1+ cases decreased from 44% to 32%, whereas that of IHC-0 cases increased from 23% to 38%. Although staining variability of IHC can be reduced through the use of fully automated staining systems,[15] the results of weakly positive staining can still be inconsistent between different automated staining platforms. Current HER2 IHC is not a

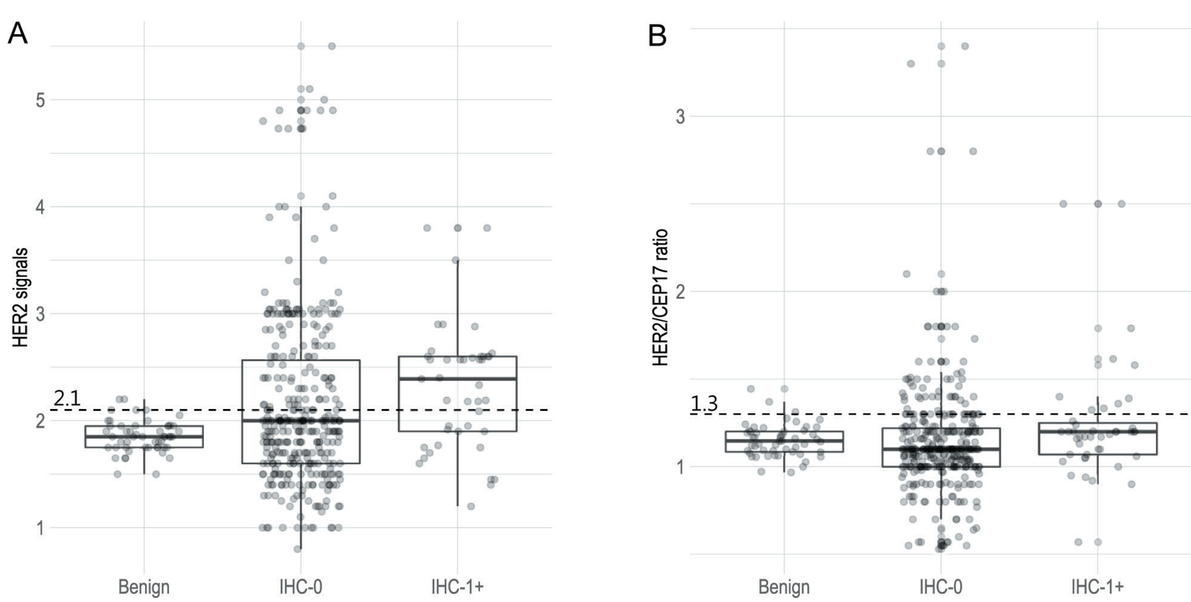

Figure 1 Distribution of (A) *HER2* signals and (B) *HER2*:CEP17 ratio of benign glands, IHC-0 and IHC-1+ cases. IHC, immunohistochemistry

Table 3 Correlation of HER2 IHC and ISH using upper bounds of HER2-normal

	IHC-0	IHC-1+	Total
HER2 ISH	n (%)	n (%)	N (%)
Proficiency test	332 (92.5)	27 (7.5)	359 (100)
HER2-normal*	304 (84.7)	24 (6.7)	328 (91.4)
HER2-low†	28 (7.8)	3 (0.8)	31 (8.6)
In-house TMA	27 (62.8)	16 (37.2)	43 (100)
HER2-normal*	26 (60.5)	12 (27.9)	38 (88.4)
HER2-low†	1 (2.3)	4 (9.3)	5 (11.6)

***HER2* signals ≤2.10 or *HER2*:CEP17 ratio ≤1.30.
† *HER2* signals >2.10 and *HER2*:CEP17 ratio >1.30.
TMA tissue microarray.IHC, immunohistochemistry; ISH, in situ hybridisation.

fit-for-purpose assay beyond the detection of overexpression, and improved methods will be needed if differentiating among lower levels of HER2 expression is clinically relevant.

Previous analysis demonstrated that higher dilutions of anti-HER2 antibody (1:1000 to1:8000) more accurately define the HER2-high from the HER2-intermediate samples, whereas lower dilutions (1:50 to 1:500) distinguish the HER2-normal from HER2-intermediate ones.[13] Camp *et al* found that normal epithelium expresses a low but detectable level of HER2 and that 17.5% of tumours exhibit similar low-level HER2 expression.[13] Improving methods might better detect HER2-low tumours showing weak HER2 IHC staining stronger than that of peritumoural benign glands. However, only the results of clinical T-DXd trials for HER2-low breast cancer can establish the lower boundary of HER2-low for testing through IHC, and calibrating HER2 assays with the central laboratories of clinical trials for staining consistency is not practical.

Since HER2 IHC has problems in low interobserver agreement and discrepancies among different staining platforms, it is difficult to use IHC to distinguish HER2-low from HER2-normal breast cancers reliably. Our results demonstrated that *HER2* signals of IHC-1+ were significantly higher than those of IHC-0 cores in PTs (table 2), but the ranges of *HER2* signals had a big overlap between IHC-1+ and IHC-0 cores. Using in-house TMAs to minimise the interlaboratory variation in IHC interpretation and staining, both *HER2* signals and *HER2*:CEP17 ratios of the IHC-1+ were significantly higher than those of IHC-0 ones. However, the ranges of *HER2* signals and *HER2*:CEP17 ratios still had a considerable overlap between IHC-1+ and IHC-0 cores. The findings suggest a correlation between the HER2 ISH and IHC. However, it may not be feasible to determine a cut-off value of *HER2* signals between HER2-low and HER2-normal by correlating it with IHC-1+/0 results.

Benign mammary glands are one kind of HER2-normal tissue. According to the American College of Medical Genetics standards and guidelines,[16] using a CI around the mean to calculate the cut-off values of HER2-normal tissue for ISH analysis is applicable. Besides, counting ISH signals is more objective than IHC interpretation. Tumour tissue with HER2 ISH results higher than the 95% reference interval of the *HER2* signals (2.10) and *HER2*:CEP17 ratio (1.30) in benign glands can be regarded as HER2-low status. Applying the confidence limits to classify the tissue cores in PTs and in-house TMAs, we found that 14.5% (52/359) and 30.2% (13/43) of the cases were classified into different HER2 categories. We hope these results can help in distinguishing HER2-low from HER2-normal breast cancers.

Handling editor Cheok Soon Lee.

Contributors Conceptualisation and design: Y-YC, C-FY, C-YH. Data acquisition, analysis and interpretation: Y-YC and C-YH. Manuscript preparation, editing and approval: Y-YC, C-FY and C-YH. Manuscript guarantor: C-YH.

Funding This work was partly supported by grants from Taipei Veterans General Hospital (V111C-200) and National Science and Technology Council, Taiwan (NSTC 111-2320-B-075-003-).

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval This study followed the ethical standards of the World Association's Declaration of Helsinki and was approved by the Institutional Review Board, Taipei Veterans General Hospital (2020-07-021AC).

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as supplemental information. Data are available in online supplemental table.

ORCID iD
Chih-Yi Hsu http://orcid.org/0000-0002-1667-4291

REFERENCES

1 Sung H, Ferlay J, Siegel RL, *et al*. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin* 2021;71:209–49.
2 National Comprehensive Cancer Network. NCCN clinical practice guidelines in oncology: breast cancer, version 3.2022,, 2022. Available: https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf [Accessed 03 Jun 2022].
3 Cardoso F, Paluch-Shimon S, Senkus E, *et al*. 5th ESO-ESMO international consensus guidelines for advanced breast cancer (ABC 5). *Ann Oncol* 2020;31:1623–49.
4 Modi S, Park H, Murthy RK, *et al*. Antitumor activity and safety of trastuzumab deruxtecan in patients with HER2-low-expressing advanced breast cancer: results from a phase Ib study. *J Clin Oncol* 2020;38:1887–96.
5 Fehrenbacher L, Cecchini RS, Geyer CE, *et al*. Nsabp B-47/NRG oncology phase III randomized trial comparing adjuvant chemotherapy with or without trastuzumab in high-risk invasive breast cancer negative for HER2 by fish and with IHC 1+ or 2. *J Clin Oncol* 2020;38:444–53.
6 Wolff AC, Hammond MEH, Hicks DG, *et al*. Recommendations for human epidermal growth factor receptor 2 testing in breast cancer: American Society of clinical Oncology/College of American pathologists clinical practice guideline update. *J Clin Oncol* 2013;31:3997–4013.
7 Wolff AC, Hammond MEH, Allison KH, *et al*. Human epidermal growth factor receptor 2 testing in breast cancer: American Society of clinical Oncology/College of American pathologists clinical practice guideline focused update. *J Clin Oncol* 2018;36:2105–22.
8 Fernandez AI, Liu M, Bellizzi A, *et al*. Examination of low ErbB2 protein expression in breast cancer tissue. *JAMA Oncol* 2022;8:1–4.
9 Modi S, Jacot W, Yamashita T, *et al*. Trastuzumab Deruxtecan in previously treated HER2-Low advanced breast cancer. *N Engl J Med* 2022;387:9–20.
10 Canda T, Yavuz E, Özdemir N, *et al*. Immunohistochemical HER2 status evaluation in breast cancer pathology samples: a multicenter, parallel-design concordance study. *Eur J Breast Health* 2018;14:160–5.
11 Brase JC, Schmidt M, Fischbach T, *et al*. Erbb2 and TOP2A in breast cancer: a comprehensive analysis of gene amplification, RNA levels, and protein expression and their influence on prognosis and prediction. *Clin Cancer Res* 2010;16:2391–401.
12 Press MF, Finn RS, Cameron D, *et al*. Her-2 gene amplification, HER-2 and epidermal growth factor receptor mRNA and protein expression, and lapatinib efficacy in women with metastatic breast cancer. *Clin Cancer Res* 2008;14:7861–70.
13 Camp RL, Dolled-Filhart M, King BL, *et al*. Quantitative analysis of breast cancer tissue microarrays shows that both high and normal levels of HER2 expression are associated with poor outcome. *Cancer Res* 2003;63:1445–8.
14 Zhang H, Katerji H, Turner BM, *et al*. HER2-Low breast cancers. *Am J Clin Pathol* 2022;157:328–36.
15 Bánkfalvi A, Boecker W, Reiner A. Comparison of automated and manual determination of HER2 status in breast cancer for diagnostic use: a comparative methodological study using the Ventana benchmark automated staining system and manual tests. *Int J Oncol* 2004;25:929–35.
16 Mascarello JT, Hirsch B, Kearney HM, *et al*. Section E9 of the American College of medical genetics technical standards and guidelines: fluorescence in situ hybridization. *Genet Med* 2011;13:667–75.

Supplemental Table 1 HER2 ISH and IHC data of study cohort.

gr	no	her2	ratio	ihc0	ihc1	ihc2	ihc3	score
PT IHC-0	pt2013-B2	1.6	1.07	34	14	5	0	0
PT IHC-0	pt2013-B6	2	1.54	33	13	7	0	0
PT IHC-0	pt2013-B7	2.52	1.8	30	21	2	0	0
PT IHC-0	pt2013-B8	1.9	1.53	33	17	3	0	0
PT IHC-0	pt2014-A4	1.7	1.1	61	3	0	0	0
PT IHC-0	pt2014-A5	1.9	0.9	49	15	0	0	0
PT IHC-0	pt2014-A6	1.5	0.9	50	12	1	0	0
PT IHC-0	pt2014B 03 01	3.3	1.3	814	138	9	0	0
PT IHC-0	pt2014B 03 02	1.9	1.1	877	89	10	0	0
PT IHC-0	pt2014B 03 06	3.1	1.2	926	49	3	0	0
PT IHC-0	pt2014B 03 07	4	1.1	788	178	12	0	0
PT IHC-0	pt2014B 03 08	4.1	1.3	825	132	7	1	0
PT IHC-0	pt2014B 03 09	2.9	0.8	888	74	4	5	0
PT IHC-0	pt2014B 03 10	2	1.3	743	170	15	1	0
PT IHC-0	pt2014B 03 12	2.2	1.1	474	237	180	12	0
PT IHC-0	pt2014B 03 14	2.1	1.4	875	36	11	10	0
PT IHC-0	pt2014B 03 11	2.1	0.7	850	61	1	1	0
PT IHC-0	pt2014B 04 01	3.2	1	953	16	1	0	0
PT IHC-0	pt2014B 04 03	3.5	1.1	904	44	5	1	0
PT IHC-0	pt2014B 04 04	2.8	1	833	60	2	6	0
PT IHC-0	pt2014B 04 05	2.5	1.3	908	54	6	4	0
PT IHC-0	pt2014B 04 06	1.8	1.1	670	247	20	1	0
PT IHC-0	pt2014B 04 07	3.1	1.1	652	294	31	3	0
PT IHC-0	pt2014B 04 08	2.4	0.9	587	328	50	1	0
PT IHC-0	pt2014B 04 10	1.9	1	934	32	4	0	0
PT IHC-0	pt2014B 04 11	2.1	0.7	847	52	8	0	0
PT IHC-0	pt2014B 04 12	2.2	1.1	508	243	139	15	0
PT IHC-0	pt2014B 04 13	2.6	1.4	871	46	10	8	0
PT IHC-0	pt2014-B1	2	1.14	49	9	4	0	0
PT IHC-0	pt2014-B6	1.27	1.27	61	1	0	0	0
PT IHC-0	pt2014-B9	2.13	1.25	37	18	6	0	0
PT IHC-0	pt2015A 01 01	2.85	1	608	337	114	3	0
PT IHC-0	pt2015A 01 02	3	1.1	1059	4	0	0	0
PT IHC-0	pt2015A 01 04	4.9	1.2	986	81	2	2	0
PT IHC-0	pt2015A 01 05	2	1.3	653	375	36	1	0
PT IHC-0	pt2015A 01 06	3	1.1	759	225	65	1	0
PT IHC-0	pt2015A 01 07	1.9	1	992	69	5	0	0
PT IHC-0	pt2015A 01 09	1.9	1.4	753	246	56	4	0
PT IHC-0	pt2015A 01 10	2.2	1.1	991	67	6	0	0
PT IHC-0	pt2015A 01 11	1.8	1	1029	26	7	0	0
PT IHC-0	pt2015A 02 02	4.9	1.2	969	84	6	0	0
PT IHC-0	pt2015A 02 03	3.04	1.1	634	395	36	4	0
PT IHC-0	pt2015A 02 06	2.2	1.3	858	12	0	0	0

PT IHC-0	pt2015A 02 07	2	1.1	1024	24	4	0	0
PT IHC-0	pt2015A 02 08	3.5	0.9	1033	31	0	2	0
PT IHC-0	pt2015A 02 09	4	1.6	1008	47	1	0	0
PT IHC-0	pt2015A 02 10	3.04	1.1	905	118	9	0	0
PT IHC-0	pt2015A 02 11	1.8	1	968	59	7	1	0
PT IHC-0	pt2015A 02 13	1.9	1.3	943	71	10	6	0
PT IHC-0	pt2015A 02 14	2	1.8	958	62	7	4	0
PT IHC-0	pt2015-A8	2.45	1.14	36	19	4	0	0
PT IHC-0	pt2015-A9	1.5	0.94	59	0	0	0	0
PT IHC-0	pt2015B 03 01	2.85	1	790	235	16	4	0
PT IHC-0	pt2015B 03 03	3	1.1	1011	4	0	2	0
PT IHC-0	pt2015B 03 05	3	1.1	935	96	9	0	0
PT IHC-0	pt2015B 03 06	1.95	1.1	755	148	25	0	0
PT IHC-0	pt2015B 03 07	3	1.1	954	48	0	0	0
PT IHC-0	pt2015B 03 08	4.73	0.9	637	378	29	2	0
PT IHC-0	pt2015B 03 09	4.9	1.5	791	208	34	3	0
PT IHC-0	pt2015B 03 11	1.8	1	923	30	11	8	0
PT IHC-0	pt2015B 03 13	1.9	1.3	883	57	6	2	0
PT IHC-0	pt2015B 03 14	2	1.8	884	43	11	4	0
PT IHC-0	pt2015B 04 02	1.86	1.1	884	129	14	4	0
PT IHC-0	pt2015B 04 03	2.85	1	975	47	5	0	0
PT IHC-0	pt2015B 04 04	3	1.1	943	15	4	1	0
PT IHC-0	pt2015B 04 06	2.15	2	888	120	10	0	0
PT IHC-0	pt2015B 04 08	3	1.1	942	74	8	1	0
PT IHC-0	pt2015B 04 11	2	1.8	907	41	11	1	0
PT IHC-0	pt2015B 04 12	1.9	1.3	900	59	8	5	0
PT IHC-0	pt2015B 04 13	1.8	1	918	36	15	3	0
PT IHC-0	pt2015-B1	1.6	1.03	50	10	2	0	0
PT IHC-0	pt2015-B10	1.75	1.13	50	14	0	0	0
PT IHC-0	pt2015-B12	1.65	1.22	56	8	0	0	0
PT IHC-0	pt2015-B18	1.65	1.06	44	12	8	0	0
PT IHC-0	pt2015-B19	1.35	1	61	3	0	0	0
PT IHC-0	pt2015-B2	1.4	0.9	56	8	0	0	0
PT IHC-0	pt2015-B20	1.45	1	50	13	1	0	0
PT IHC-0	pt2015-B21	2.2	1.02	36	19	8	1	0
PT IHC-0	pt2015-B3	1.3	1.18	38	16	6	0	0
PT IHC-0	pt2015-B4	1.5	1.2	40	18	6	0	0
PT IHC-0	pt2015-B6	2	1.43	55	9	0	0	0
PT IHC-0	pt2015-B7	1.65	1.22	50	12	2	0	0
PT IHC-0	pt2015-B8	2.7	1.38	53	10	1	0	0
PT IHC-0	pt2016A 01 01	3.04	1.1	1094	22	0	5	0
PT IHC-0	pt2016A 01 04	2.53	1.6	957	158	12	0	0
PT IHC-0	pt2016A 01 05	4.73	0.9	723	371	31	0	0
PT IHC-0	pt2016A 01 06	2.88	1.1	857	241	29	1	0
PT IHC-0	pt2016A 01 08	1.95	1.1	996	112	5	2	0
PT IHC-0	pt2016A 01 09	2	1.1	1040	63	10	0	0

PT IHC-0	pt2016A 01 10	1.86	1.1	919	175	27	1	0
PT IHC-0	pt2016A 02 02	1.68	1	931	170	26	4	0
PT IHC-0	pt2016A 02 04	2	1.2	1119	9	2	1	0
PT IHC-0	pt2016A 02 05	1.2	0.6	1054	75	1	0	0
PT IHC-0	pt2016A 02 06	2.1	1	1101	22	3	1	0
PT IHC-0	pt2016A 02 07	2.74	0.7	1041	66	11	4	0
PT IHC-0	pt2016A 02 09	2	1.2	1111	17	1	0	0
PT IHC-0	pt2016A 02 10	3.04	1.1	999	73	5	1	0
PT IHC-0	pt2016-A10	1.95	0.98	37	18	6	0	0
PT IHC-0	pt2016-A11	1.7	1.21	46	15	0	0	0
PT IHC-0	pt2016-A13	1.85	0.7	49	11	1	0	0
PT IHC-0	pt2016-A14	1.4	0.88	57	4	0	0	0
PT IHC-0	pt2016-A15	1.7	0.64	46	9	1	0	0
PT IHC-0	pt2016-A22	1.6	1.07	50	8	2	1	0
PT IHC-0	pt2016-A28	1.85	0.97	26	12	5	0	0
PT IHC-0	pt2016-A3	2	1.14	28	8	0	0	0
PT IHC-0	pt2016-A38	2.05	1	43	14	4	0	0
PT IHC-0	pt2016-A40	1.65	1.06	31	20	8	1	0
PT IHC-0	pt2016-A5	2.7	1.06	49	11	1	0	0
PT IHC-0	pt2016-A6	2.65	1.51	50	10	0	0	0
PT IHC-0	pt2016-A7	2.45	1.32	31	24	6	0	0
PT IHC-0	pt2016-A9	2.3	1.12	34	20	7	0	0
PT IHC-0	pt2016B 03 01	2	1.2	1110	4	0	0	0
PT IHC-0	pt2016B 03 02	3.1	1.5	972	107	11	4	0
PT IHC-0	pt2016B 03 03	2	1.1	1089	25	0	0	0
PT IHC-0	pt2016B 03 04	1.6	0.8	1045	59	8	0	0
PT IHC-0	pt2016B 03 05	1.9	1.3	963	115	21	5	0
PT IHC-0	pt2016B 03 06	3.1	1.4	847	142	36	9	0
PT IHC-0	pt2016B 04 01	2	1.2	1107	8	0	0	0
PT IHC-0	pt2016B 04 03	2.3	1.1	1092	7	1	2	0
PT IHC-0	pt2016B 04 04	1.5	0.7	1016	33	6	1	0
PT IHC-0	pt2016B 04 07	2.6	1.1	651	361	75	6	0
PT IHC-0	pt2016B 04 08	1.4	1.1	1105	4	0	5	0
PT IHC-0	pt2016B 04 09	2.3	1.5	981	115	10	4	0
PT IHC-0	pt2016B 04 10	1.7	0.8	969	134	12	0	0
PT IHC-0	pt2016-B11	1.3	1.04	36	20	5	0	0
PT IHC-0	pt2016-B15	1.15	0.88	51	8	2	0	0
PT IHC-0	pt2016-B27	1.65	1.06	37	19	5	0	0
PT IHC-0	pt2016-B31	1.75	1.8	34	17	10	0	0
PT IHC-0	pt2016-B38	1.35	1.17	57	4	0	0	0
PT IHC-0	pt2016-B40	1.7	0.77	52	7	0	0	0
PT IHC-0	pt2016-B5	1.45	1.26	60	1	0	0	0
PT IHC-0	pt2016-B6	1.3	0.96	60	0	1	0	0
PT IHC-0	pt2016-B8	2.85	1.73	51	8	0	0	0
PT IHC-0	pt2016-B9	1.25	0.89	60	1	0	0	0
PT IHC-0	pt2017-1	1.95	1.26	32	24	4	0	0

PT IHC-0	pt2017-15	1.6	1.45	49	10	1	0	0
PT IHC-0	pt2017-16	1.45	1.04	43	16	1	0	0
PT IHC-0	pt2017-17	1.1	1.1	27	8	1	0	0
PT IHC-0	pt2017-19	1.2	0.83	55	5	0	0	0
PT IHC-0	pt2017-2	1.6	1.03	40	16	4	0	0
PT IHC-0	pt2017-26	1.4	1.04	51	7	2	0	0
PT IHC-0	pt2017-27	1.45	1	42	15	3	0	0
PT IHC-0	pt2017-37	1.25	1.04	52	6	2	0	0
PT IHC-0	pt2017-38	1.2	0.96	50	7	3	0	0
PT IHC-0	pt2017-5	1.65	1.38	46	8	0	0	0
PT IHC-0	pt2017-6	1.55	1.03	32	2	0	0	0
PT IHC-0	pt2017-8	1.6	1.07	54	6	0	0	0
PT IHC-0	pt2017-9	1.6	1.19	51	9	0	0	0
PT IHC-0	pt2017A 01 01	3.04	1.06	759	262	76	1	0
PT IHC-0	pt2017A 01 02	0.8	0.53	915	144	23	7	0
PT IHC-0	pt2017A 01 03	2	0.91	874	226	19	0	0
PT IHC-0	pt2017A 01 04	4	1.33	787	303	28	1	0
PT IHC-0	pt2017A 01 05	2	1.16	1100	11	0	1	0
PT IHC-0	pt2017A 01 06	1.5	1.25	965	147	5	0	0
PT IHC-0	pt2017A 01 07	1.95	1.07	1063	10	1	2	0
PT IHC-0	pt2017A 02 01	3	1.05	1010	57	17	1	0
PT IHC-0	pt2017A 02 04	2.88	1.07	868	220	27	1	0
PT IHC-0	pt2017A 02 05	2	1.16	1102	5	1	0	0
PT IHC-0	pt2017A 02 06	1.68	0.98	969	137	9	1	0
PT IHC-0	pt2017A 02 07	1.95	1.07	856	208	22	1	0
PT IHC-0	pt2017A 02 08	1.4	1.08	1102	4	0	2	0
PT IHC-0	pt2017B 03 01	4.73	0.94	1144	39	6	14	0
PT IHC-0	pt2017B 03 02	4.9	1.48	1168	20	1	17	0
PT IHC-0	pt2017B 03 03	2	1.18	1204	4	0	0	0
PT IHC-0	pt2017B 03 04	1.2	0.57	1127	71	12	0	0
PT IHC-0	pt2017B 03 05	3.04	1.06	709	434	62	1	0
PT IHC-0	pt2017B 03 08	2	1.16	1193	12	0	0	0
PT IHC-0	pt2017B 04 03	2	1.16	1203	2	0	0	0
PT IHC-0	pt2017B 04 04	3	1.05	768	254	178	3	0
PT IHC-0	pt2017B 04 05	1.5	1.23	1083	120	3	0	0
PT IHC-0	pt2017B 04 06	2.33	0.65	1109	52	27	15	0
PT IHC-0	pt2017B 04 07	2	1.16	1196	11	0	0	0
PT IHC-0	pt2018-1	1.9	1.1	53	8	1	1	0
PT IHC-0	pt2018-10	1.8	1.5	60	2	1	0	0
PT IHC-0	pt2018-11	2.8	1.5	58	4	1	0	0
PT IHC-0	pt2018-12	2.1	1.1	37	23	3	0	0
PT IHC-0	pt2018-14	5	2.8	32	22	9	0	0
PT IHC-0	pt2018-15	2.1	1.2	61	2	0	0	0
PT IHC-0	pt2018-16	1.8	1.2	60	2	1	0	0
PT IHC-0	pt2018-18	1.8	1.2	60	3	0	0	0
PT IHC-0	pt2018-19	2.4	1.1	49	12	2	0	0

PT IHC-0	pt2018-2	1.6	1.2	59	4	0	0	0
PT IHC-0	pt2018-20	2.7	1.2	48	14	1	0	0
PT IHC-0	pt2018-21	2.1	1.1	52	11	0	0	0
PT IHC-0	pt2018-22	1.9	1.2	59	4	0	0	0
PT IHC-0	pt2018-25	1.8	1.2	53	8	2	0	0
PT IHC-0	pt2018-3	2	1.3	61	2	0	0	0
PT IHC-0	pt2018-4	1.9	1.2	61	1	0	0	0
PT IHC-0	pt2018-6	3.9	1.1	32	22	9	0	0
PT IHC-0	pt2018-7	4.8	2.8	56	6	1	0	0
PT IHC-0	pt2018-8	5.5	3.3	43	18	2	0	0
PT IHC-0	pt2018A 01 01	3.04	1.06	1079	38	1	0	0
PT IHC-0	pt2018A 01 03	2	1.16	1117	4	0	7	0
PT IHC-0	pt2018A 01 04	3	1.03	1086	14	0	0	0
PT IHC-0	pt2018A 01 07	3.9	1.3	982	136	3	7	0
PT IHC-0	pt2018A 02 01	2	1.16	1121	5	1	0	0
PT IHC-0	pt2018A 02 02	1	0.83	791	281	48	7	0
PT IHC-0	pt2018A 02 04	2.1	2	1078	48	2	0	0
PT IHC-0	pt2018A 02 05	3.04	1.06	628	361	137	2	0
PT IHC-0	pt2018A 02 08	1	0.83	567	407	140	9	0
PT IHC-0	pt2018A 02 09	1.69	0.98	793	256	69	5	0
PT IHC-0	pt2018B 03 01	1	0.8	1186	33	0	0	0
PT IHC-0	pt2018B 03 05	3	1.1	1124	63	2	3	0
PT IHC-0	pt2018B 03 07	2.9	1.1	986	216	14	1	0
PT IHC-0	pt2018B 03 08	2	1.2	1210	2	0	1	0
PT IHC-0	pt2018B 03 09	1.9	1.4	1109	92	8	1	0
PT IHC-0	pt2018B 04 01	3	1	1162	4	0	0	0
PT IHC-0	pt2018B 04 02	1	0.8	961	209	41	1	0
PT IHC-0	pt2018B 04 03	3	1	1094	82	2	1	0
PT IHC-0	pt2018B 04 05	2	1.2	1210	4	0	0	0
PT IHC-0	pt2019-1	2.2	1.6	51	11	2	0	0
PT IHC-0	pt2019-11	1.8	1.3	55	7	2	0	0
PT IHC-0	pt2019-12	2.7	2.1	59	5	0	0	0
PT IHC-0	pt2019-13	1.6	1	41	16	7	0	0
PT IHC-0	pt2019-14	2	1.3	53	7	4	0	0
PT IHC-0	pt2019-15	1.7	1	51	3	0	9	0
PT IHC-0	pt2019-16	3.2	1.4	54	10	0	0	0
PT IHC-0	pt2019-17	1.5	1.2	55	6	3	0	0
PT IHC-0	pt2019-18	1.6	1.1	48	11	2	0	0
PT IHC-0	pt2019-19	2.4	1.5	52	10	2	0	0
PT IHC-0	pt2019-2	2.3	1.6	34	23	7	0	0
PT IHC-0	pt2019-20	5.1	3.4	42	15	7	0	0
PT IHC-0	pt2019-25	1.6	1.1	61	3	0	0	0
PT IHC-0	pt2019-4	1.9	1.4	59	4	1	0	0
PT IHC-0	pt2019-7	1.5	1.3	58	6	0	0	0
PT IHC-0	pt2019-9	2.6	1.2	34	23	7	0	0
PT IHC-0	pt2019A 01 04	2.15	1.04	1174	70	2	0	0

PT IHC-0	pt2019A 01 06	2.03	1.23	1238	3	1	4	0
PT IHC-0	pt2019A 01 08	1.2	0.57	1005	201	34	3	0
PT IHC-0	pt2019A 01 09	1.8	1.2	1223	11	0	0	0
PT IHC-0	pt2019A 01 10	3	1.03	1220	1	0	1	0
PT IHC-0	pt2019A 02 01	3.04	1.06	1115	80	4	4	0
PT IHC-0	pt2019A 02 02	1.9	1.07	1157	56	8	0	0
PT IHC-0	pt2019A 02 03	2	1.16	1208	26	0	5	0
PT IHC-0	pt2019A 02 04	1.2	0.57	891	203	101	4	0
PT IHC-0	pt2019A 02 07	1.4	0.55	1225	3	1	5	0
PT IHC-0	pt2019A 02 09	1.9	1.07	1120	78	5	1	0
PT IHC-0	pt2019A 02 10	2.88	1.07	654	496	82	1	0
PT IHC-0	pt2019B 03 01	1	1	1253	27	1	0	0
PT IHC-0	pt2019B 03 02	1.5	1	1268	17	0	0	0
PT IHC-0	pt2019B 03 03	2.15	1.04	1144	128	7	7	0
PT IHC-0	pt2019B 03 07	1.4	1.4	925	337	19	7	0
PT IHC-0	pt2019B 03 08	3.04	1.06	1071	176	28	4	0
PT IHC-0	pt2019B 03 10	1.5	1	1266	22	0	1	0
PT IHC-0	pt2019B 04 01	3	1.5	907	337	35	3	0
PT IHC-0	pt2019B 04 02	1	0.57	1253	0	0	0	0
PT IHC-0	pt2019B 04 04	2.6	1.27	1257	24	4	1	0
PT IHC-0	pt2019B 04 05	1.4	0.55	1274	1	1	7	0
PT IHC-0	pt2019B 04 08	1.75	1.07	874	3	0	0	0
PT IHC-0	pt2019B 04 10	3	1.03	1197	3	0	1	0
PT IHC-0	pt2020-10	1.4	1.1	63	5	0	0	0
PT IHC-0	pt2020-12	1.5	1.2	65	2	1	0	0
PT IHC-0	pt2020-13	1.8	1.1	61	6	0	0	0
PT IHC-0	pt2020-14	1.6	1	53	4	0	0	0
PT IHC-0	pt2020-16	1.4	1	58	9	1	0	0
PT IHC-0	pt2020-17	1.4	1	63	4	1	0	0
PT IHC-0	pt2020-19	1.5	1.1	66	1	0	1	0
PT IHC-0	pt2020-2	1.6	1.3	41	24	1	0	0
PT IHC-0	pt2020-20	1.4	1.1	62	3	1	0	0
PT IHC-0	pt2020-22	1.8	0.8	60	3	1	0	0
PT IHC-0	pt2020-24	1.8	1.1	65	2	1	0	0
PT IHC-0	pt2020-25	1.4	0.9	65	3	0	0	0
PT IHC-0	pt2020-4	1.2	0.9	66	2	0	0	0
PT IHC-0	pt2020-7	1.8	0.9	40	26	2	0	0
PT IHC-0	pt2020-9	1.8	1.1	63	2	1	0	0
PT IHC-0	pt2020A 01 02	2.15	1.04	1192	115	8	8	0
PT IHC-0	pt2020A 01 06	1.9	1.46	1293	35	0	0	0
PT IHC-0	pt2020A 01 07	2	1	881	379	66	2	0
PT IHC-0	pt2020A 01 09	1.7	0.8	1293	4	0	0	0
PT IHC-0	pt2020A 01 10	2.03	1.23	1319	3	0	0	0
PT IHC-0	pt2020A 02 01	1.4	0.55	1299	2	0	9	0
PT IHC-0	pt2020A 02 03	1.7	0.8	1279	8	1	0	0
PT IHC-0	pt2020A 02 04	3.04	1.06	776	493	47	12	0

PT IHC-0	pt2020A 02 06	3.7	1.42	926	359	41	1	0
PT IHC-0	pt2020A 02 07	2.15	1.04	1040	257	26	0	0
PT IHC-0	pt2020A 02 09	2.4	1.14	1321	7	0	0	0
PT IHC-0	pt2020A 02 10	2	1	1293	18	0	0	0
PT IHC-0	pt2020B 03 01	2.4	1.14	1301	4	0	0	0
PT IHC-0	pt2020B 03 03	1	0.83	1295	8	0	1	0
PT IHC-0	pt2020B 03 04	2.9	1.23	814	424	59	4	0
PT IHC-0	pt2020B 03 05	2.15	1.04	1165	140	1	0	0
PT IHC-0	pt2020B 03 06	2.03	1.23	1294	0	2	5	0
PT IHC-0	pt2020B 03 10	1.9	1.46	1254	39	1	12	0
PT IHC-0	pt2020B 04 01	1	1	1276	22	3	0	0
PT IHC-0	pt2020B 04 02	1.3	1.3	1253	35	0	7	0
PT IHC-0	pt2020B 04 03	1.4	0.55	1297	2	1	2	0
PT IHC-0	pt2020B 04 07	1.8	1.2	1228	62	4	8	0
PT IHC-0	pt2020B 04 08	1.71	1.11	684	587	28	0	0
PT IHC-0	pt2020B 04 09	3	1.03	1285	1	0	7	0
PT IHC-0	pt2021-1	2	1.1	41	27	4	0	0
PT IHC-0	pt2021-10	1.8	1.1	65	6	1	0	0
PT IHC-0	pt2021-12	1.8	1.3	59	11	1	0	0
PT IHC-0	pt2021-14	1.6	1.1	70	0	0	0	0
PT IHC-0	pt2021-15	3.1	1.2	69	3	0	0	0
PT IHC-0	pt2021-16	1.9	1.2	70	1	1	0	0
PT IHC-0	pt2021-17	1.5	1.2	40	29	3	0	0
PT IHC-0	pt2021-18	2.6	1.3	69	2	1	0	0
PT IHC-0	pt2021-22	2.4	1.4	65	7	0	0	0
PT IHC-0	pt2021-23	2.3	1.1	65	5	2	0	0
PT IHC-0	pt2021-24	1.5	1.1	70	2	0	0	0
PT IHC-0	pt2021-25	2.1	1.1	60	8	1	3	0
PT IHC-0	pt2021-4	1.7	0.9	65	6	1	0	0
PT IHC-0	pt2021-5	2.2	1	65	6	1	0	0
PT IHC-0	pt2021-6	1.8	0.8	68	3	0	0	0
PT IHC-0	pt2021-9	1.7	1.1	60	10	1	1	0
PT IHC-0	pt2021A 01 01	2.7	1.29	1281	58	1	0	0
PT IHC-0	pt2021A 01 02	2.37	1.23	743	494	101	3	0
PT IHC-0	pt2021A 01 03	3	1.03	1298	3	0	2	0
PT IHC-0	pt2021A 01 05	1	1	1317	21	3	0	0
PT IHC-0	pt2021A 01 07	1.7	1.1	676	626	36	1	0
PT IHC-0	pt2021A 01 08	3.04	1.06	1283	46	1	1	0
PT IHC-0	pt2021A 02 01	2.6	1.3	1315	22	2	1	0
PT IHC-0	pt2021A 02 03	2.03	1.23	1326	2	4	5	0
PT IHC-0	pt2021A 02 04	2.4	1.14	1334	7	0	0	0
PT IHC-0	pt2021A 02 05	1.9	1.36	1327	11	0	0	0
PT IHC-0	pt2021A 02 07	2	1	1208	122	4	7	0
PT IHC-0	pt2021A 02 08	2	1.1	1121	209	7	1	0
PT IHC-0	pt2021A 02 09	2.4	1	1329	9	2	1	0
PT IHC-0	pt2021B 03 01	1.3	1.3	1299	59	0	0	0

PT IHC-0	pt2021B 03 03	1.5	1.3	1343	13	0	1	0
PT IHC-0	pt2021B 03 04	1	1	1343	13	1	1	0
PT IHC-0	pt2021B 03 05	1.6	1.39	1350	5	0	0	0
PT IHC-0	pt2021B 03 06	2	1.1	1227	130	0	0	0
PT IHC-0	pt2021B 03 08	2.7	1.29	1255	98	5	1	0
PT IHC-0	pt2021B 03 10	3	1.03	1337	2	0	2	0
PT IHC-0	pt2021B 04 01	2.37	1.2	1150	198	9	0	0
PT IHC-0	pt2021B 04 02	2.4	1	1341	18	1	0	0
PT IHC-0	pt2021B 04 05	2.6	1	1338	10	1	2	0
PT IHC-0	pt2021B 04 06	2.03	1.23	1356	1	0	2	0
PT IHC-0	pt2021B 04 07	3.04	1.06	1102	231	26	2	0
PT IHC-0	pt2021B 04 08	1	0.83	1340	16	1	2	0
PT IHC-0	pt2021B 04 10	3.8	1.09	1348	6	0	4	0
PT IHC-1+	pt2013-B5	2.88	1.58	9	27	14	3	1
PT IHC-1+	pt2015A 01 13	1.9	0.9	255	557	234	5	1
PT IHC-1+	pt2015B 03 04	2.57	1.2	325	561	156	3	1
PT IHC-1+	pt2015B 04 07	2.57	1.2	223	586	234	2	1
PT IHC-1+	pt2015B 04 10	2.4	1	266	564	208	5	1
PT IHC-1+	pt2015-B22	1.4	1.22	11	33	19	1	1
PT IHC-1+	pt2015-B5	1.45	1.07	25	34	5	0	1
PT IHC-1+	pt2016B 03 10	2.6	1.1	225	643	237	2	1
PT IHC-1+	pt2017-13	2.63	1.36	7	31	21	1	1
PT IHC-1+	pt2017-28	1.9	0.95	9	31	20	0	1
PT IHC-1+	pt2017-3	1.95	1.39	9	32	18	1	1
PT IHC-1+	pt2017B 03 07	2.57	1.17	431	618	153	2	1
PT IHC-1+	pt2017B 04 08	2.57	1.17	291	744	168	2	1
PT IHC-1+	pt2018A 01 05	1.2	0.57	453	598	72	0	1
PT IHC-1+	pt2018A 01 06	2.6	1.2	347	657	114	3	1
PT IHC-1+	pt2018A 01 10	2.6	1.2	393	631	95	3	1
PT IHC-1+	pt2018A 02 06	2.19	1.05	415	569	138	4	1
PT IHC-1+	pt2018B 03 06	2.6	1.2	356	725	122	4	1
PT IHC-1+	pt2018B 04 04	2.6	1.2	482	620	112	2	1
PT IHC-1+	pt2018B 04 06	1.7	1.1	481	643	88	1	1
PT IHC-1+	pt2019A 01 02	2.57	1.17	296	733	181	2	1
PT IHC-1+	pt2019B 03 04	2.57	1.17	151	838	247	2	1
PT IHC-1+	pt2020A 01 05	2.19	1.05	429	735	144	9	1
PT IHC-1+	pt2020B 03 08	2.18	1.06	337	705	243	2	1
PT IHC-1+	pt2021-11	2.9	1.2	23	41	7	1	1
PT IHC-1+	pt2021-21	3.8	2.5	12	40	20	0	1
PT IHC-1+	pt2021A 01 04	2.18	1.03	220	782	332	4	1
PT IHC-2+	pt2014B 04 02	3.3	1.3	57	268	569	67	2
PT IHC-2+	pt2015A 01 14	3.9	1.6	19	130	739	171	2
PT IHC-2+	pt2015A 02 01	10.8	2.8	52	317	616	77	2
PT IHC-2+	pt2015-A1	2.75	1.45	7	19	30	1	2
PT IHC-2+	pt2015-A10	2.05	1.03	0	0	63	0	2
PT IHC-2+	pt2016A 02 08	21.9	2.9	24	137	669	300	2

PT IHC-2+	pt2016-A23	2.2	1.13	4	13	31	13	2
PT IHC-2+	pt2019-22	5.1	3.8	5	3	33	23	2
PT IHC-2+	pt2020-3	3.9	2.4	6	20	36	6	2
PT IHC-2+	pt2020-8	17.3	5.6	1	7	41	19	2
PT IHC-2+	pt2021-20	6.1	3.3	4	11	43	14	2
PT IHC-3+	pt2013-B1	14.9	9.03	0	0	3	50	3
PT IHC-3+	pt2013-B9	13.4	6.87	1	1	13	38	3
PT IHC-3+	pt2014-A2	17	5.1	0	0	8	56	3
PT IHC-3+	pt2014-A7	11.9	8.5	0	0	9	53	3
PT IHC-3+	pt2014-A8	14.2	9.5	2	0	0	62	3
PT IHC-3+	pt2014B 03 04	11.9	3.7	4	3	23	952	3
PT IHC-3+	pt2014B 03 05	17	5.5	6	36	151	788	3
PT IHC-3+	pt2014B 03 13	54	11.5	17	4	41	867	3
PT IHC-3+	pt2014B 04 09	9.4	3.2	19	38	245	677	3
PT IHC-3+	pt2014B 04 14	54	11.5	13	4	30	886	3
PT IHC-3+	pt2014-B2	15.4	10.27	0	0	0	62	3
PT IHC-3+	pt2014-B3	9.2	5.11	0	0	1	61	3
PT IHC-3+	pt2014-B8	11.8	6.38	0	0	6	56	3
PT IHC-3+	pt2015A 01 08	20.1	5.2	7	21	169	873	3
PT IHC-3+	pt2015A 01 12	54	11.4	4	3	14	1038	3
PT IHC-3+	pt2015A 02 04	22.5	7	15	42	369	641	3
PT IHC-3+	pt2015A 02 12	54	11.4	10	7	68	968	3
PT IHC-3+	pt2015-A3	15.6	7.43	0	0	17	46	3
PT IHC-3+	pt2015-A4	18.4	6.94	0	4	21	38	3
PT IHC-3+	pt2015-A6	13.35	5.04	0	0	1	62	3
PT IHC-3+	pt2015B 03 02	11.6	6.1	4	30	250	759	3
PT IHC-3+	pt2015B 03 10	4.2	2.1	6	5	89	944	3
PT IHC-3+	pt2015B 03 12	26.8	8.1	8	1	12	1005	3
PT IHC-3+	pt2015B 04 01	10	3.1	8	23	230	781	3
PT IHC-3+	pt2015B 04 09	20.1	5.2	9	15	95	929	3
PT IHC-3+	pt2015B 04 14	54	11.4	6	3	17	990	3
PT IHC-3+	pt2015-B14	9.25	4.3	0	0	1	63	3
PT IHC-3+	pt2015-B15	7.25	4.68	0	0	1	63	3
PT IHC-3+	pt2015-B9	8.2	3.73	0	0	1	63	3
PT IHC-3+	pt2016A 01 02	20.1	5.2	7	4	45	1076	3
PT IHC-3+	pt2016A 01 03	22.6	7.7	2	2	106	1024	3
PT IHC-3+	pt2016A 01 07	22.3	6.8	6	0	36	1092	3
PT IHC-3+	pt2016A 02 01	25.3	10.4	7	2	20	1043	3
PT IHC-3+	pt2016A 02 03	11.6	6.1	2	11	206	870	3
PT IHC-3+	pt2016-A17	16.05	1.07	0	0	0	61	3
PT IHC-3+	pt2016-A18	13.65	6.35	0	2	12	30	3
PT IHC-3+	pt2016-A19	15.6	6.78	0	0	1	60	3
PT IHC-3+	pt2016-A29	2.1	1.14	7	2	7	31	3
PT IHC-3+	pt2016-A30	19.05	6.8	0	1	0	60	3
PT IHC-3+	pt2016-A4	13.45	9.28	0	0	0	61	3
PT IHC-3+	pt2016B 03 07	6	4.6	3	4	10	1097	3

PT IHC-3+	pt2016B 03 08	5	2.8	5	5	181	923	3
PT IHC-3+	pt2016B 03 09	12	4.3	5	4	84	1022	3
PT IHC-3+	pt2016B 04 02	7	5.4	5	0	117	946	3
PT IHC-3+	pt2016B 04 06	6.2	2.6	5	8	205	897	3
PT IHC-3+	pt2016-B10	4.55	2.46	1	4	22	34	3
PT IHC-3+	pt2016-B17	8.6	5.93	0	1	2	34	3
PT IHC-3+	pt2016-B18	14	9.03	1	0	2	58	3
PT IHC-3+	pt2016-B24	9.9	6.83	2	1	2	47	3
PT IHC-3+	pt2016-B3	9.6	3.76	1	0	7	53	3
PT IHC-3+	pt2016-B36	8.4	6.72	1	1	1	44	3
PT IHC-3+	pt2016-B37	6.3	2.52	3	3	24	31	3
PT IHC-3+	pt2017-10	5.9	3.58	0	0	1	59	3
PT IHC-3+	pt2017-11	10.15	7.52	0	0	10	50	3
PT IHC-3+	pt2017-12	8.45	5.12	1	0	0	59	3
PT IHC-3+	pt2017-14	7.75	5.17	0	0	1	59	3
PT IHC-3+	pt2017-20	9.65	6.89	0	0	0	60	3
PT IHC-3+	pt2017-21	9.95	6.42	0	0	0	60	3
PT IHC-3+	pt2017-22	10.35	5.59	0	0	10	50	3
PT IHC-3+	pt2017-23	7.6	5.24	0	0	0	60	3
PT IHC-3+	pt2017-24	9.9	7.62	0	0	0	60	3
PT IHC-3+	pt2017-25	7.45	5.73	0	0	0	60	3
PT IHC-3+	pt2017-31	7.9	5.27	0	0	0	60	3
PT IHC-3+	pt2017-32	6.25	5	0	0	1	59	3
PT IHC-3+	pt2017-4	13.8	11.04	0	0	3	57	3
PT IHC-3+	pt2017-7	11.15	7.19	0	0	7	53	3
PT IHC-3+	pt2017A 01 08	7	1.4	4	0	22	1093	3
PT IHC-3+	pt2017A 01 09	10	5	0	0	11	1109	3
PT IHC-3+	pt2017A 01 10	5	2.5	2	12	301	804	3
PT IHC-3+	pt2017A 02 02	22.6	7.79	0	3	79	1035	3
PT IHC-3+	pt2017A 02 09	7	1.4	9	2	27	1075	3
PT IHC-3+	pt2017A 02 10	10	3.33	1	4	171	939	3
PT IHC-3+	pt2017B 03 06	20.1	5.15	42	6	36	1093	3
PT IHC-3+	pt2017B 03 09	5	2.5	13	10	158	1026	3
PT IHC-3+	pt2017B 03 10	25.3	17.69	0	1	17	1183	3
PT IHC-3+	pt2017B 04 01	5	2.53	11	7	221	968	3
PT IHC-3+	pt2017B 04 02	20.1	5.15	29	3	40	1134	3
PT IHC-3+	pt2017B 04 10	22.6	7.79	1	0	48	1156	3
PT IHC-3+	pt2018-17	15.9	3.9	0	1	13	49	3
PT IHC-3+	pt2018-23	15	7.5	0	3	4	45	3
PT IHC-3+	pt2018-24	12	7.4	0	0	4	59	3
PT IHC-3+	pt2018-9	22.7	9.9	6	2	6	39	3
PT IHC-3+	pt2018A 01 02	7	1.4	6	3	11	1111	3
PT IHC-3+	pt2018A 01 08	10	5	3	5	9	1111	3
PT IHC-3+	pt2018A 01 09	13.2	4.7	8	14	303	801	3
PT IHC-3+	pt2018A 02 03	7	1.4	9	2	23	1096	3
PT IHC-3+	pt2018A 02 07	20.1	5.15	11	3	62	1053	3

PT IHC-3+	pt2018B 03 02	7	1.4	104	12	76	992	3
PT IHC-3+	pt2018B 03 03	10	3.3	1	5	122	1084	3
PT IHC-3+	pt2018B 03 04	10	1	3	5	138	1072	3
PT IHC-3+	pt2018B 04 08	10	5	2	2	7	1206	3
PT IHC-3+	pt2018B 04 09	22.6	7.8	2	1	32	1182	3
PT IHC-3+	pt2018B 04 10	10	3.2	2	0	12	1200	3
PT IHC-3+	pt2019-10	12.5	5.9	10	0	1	53	3
PT IHC-3+	pt2019-21	7.1	4.4	2	1	12	49	3
PT IHC-3+	pt2019-23	8.9	4.4	1	0	12	51	3
PT IHC-3+	pt2019-24	11.6	3.6	1	2	21	40	3
PT IHC-3+	pt2019-6	5.9	3	2	4	18	40	3
PT IHC-3+	pt2019A 01 01	7	1.4	23	12	25	1182	3
PT IHC-3+	pt2019A 01 03	10	5	6	1	14	1230	3
PT IHC-3+	pt2019A 01 07	10	3.19	12	37	27	1176	3
PT IHC-3+	pt2019A 02 06	10	3.19	7	2	38	1135	3
PT IHC-3+	pt2019A 02 08	10	3.33	4	6	98	1127	3
PT IHC-3+	pt2019A 02 05	10	1	5	13	288	936	3
PT IHC-3+	pt2019B 03 05	7	1.4	32	5	35	1205	3
PT IHC-3+	pt2019B 03 06	10	5	6	5	16	1262	3
PT IHC-3+	pt2019B 03 09	10	1	4	4	236	1046	3
PT IHC-3+	pt2019B 04 03	15.1	9.44	11	1	6	1260	3
PT IHC-3+	pt2019B 04 07	22.6	7.79	11	1	60	1211	3
PT IHC-3+	pt2019B 04 09	10	1	5	7	128	1147	3
PT IHC-3+	pt2020-11	4.7	2.1	0	1	30	37	3
PT IHC-3+	pt2020-15	7.6	3.8	0	0	2	66	3
PT IHC-3+	pt2020-18	4.7	3.1	0	0	1	67	3
PT IHC-3+	pt2020-23	5.7	3.6	0	0	1	67	3
PT IHC-3+	pt2020-5	9.8	6.1	0	0	2	66	3
PT IHC-3+	pt2020A 01 01	10	1	11	7	122	1112	3
PT IHC-3+	pt2020A 01 04	15.1	9.44	8	2	5	1307	3
PT IHC-3+	pt2020A 01 08	7	1.4	1	0	11	1314	3
PT IHC-3+	pt2020A 02 02	10	1	10	6	156	1156	3
PT IHC-3+	pt2020A 02 05	7	1.4	54	24	54	1190	3
PT IHC-3+	pt2020A 02 08	15.1	9.44	0	0	3	1320	3
PT IHC-3+	pt2020B 03 02	10	1	8	2	94	1201	3
PT IHC-3+	pt2020B 03 07	10	5	8	0	8	1288	3
PT IHC-3+	pt2020B 03 09	7	1.4	79	10	40	1164	3
PT IHC-3+	pt2020B 04 04	7.5	2.88	7	3	7	1286	3
PT IHC-3+	pt2020B 04 06	10	3.33	15	60	549	676	3
PT IHC-3+	pt2020B 04 10	7	1.4	7	1	14	1280	3
PT IHC-3+	pt2021-13	12.3	5.9	0	1	6	65	3
PT IHC-3+	pt2021-19	16.6	6.9	0	1	2	55	3
PT IHC-3+	pt2021-2	12.5	4.8	1	0	1	70	3
PT IHC-3+	pt2021-3	15.1	6.1	1	0	3	68	3
PT IHC-3+	pt2021-7	15.6	6.9	0	3	18	51	3
PT IHC-3+	pt2021-8	18.1	9.5	1	0	9	61	3

PT IHC-3+	pt2021A 01 06	9.1	2.3	3	12	147	1177	3
PT IHC-3+	pt2021A 01 09	10	1	5	18	399	906	3
PT IHC-3+	pt2021A 01 10	6.9	2.3	1	4	28	1307	3
PT IHC-3+	pt2021A 02 02	7.3	3.5	4	22	270	1045	3
PT IHC-3+	pt2021A 02 06	7.5	2.88	9	1	53	1278	3
PT IHC-3+	pt2021A 02 10	7	1.4	22	1	5	1314	3
PT IHC-3+	pt2021B 03 02	4.6	2.88	2	19	366	974	3
PT IHC-3+	pt2021B 03 07	12	6.32	1	1	18	1340	3
PT IHC-3+	pt2021B 03 09	9.1	2.3	4	14	183	1160	3
PT IHC-3+	pt2021B 04 03	7	1.4	5	1	12	1341	3
PT IHC-3+	pt2021B 04 04	6.9	2.3	7	2	54	1296	3
PT IHC-3+	pt2021B 04 09	7.3	3.5	6	55	470	827	3
PT IHC-no	pt2013-B3	1.35	1.17	24	20	7	2	
PT IHC-no	pt2013-B4	2.63	1.4	2	24	18	9	
PT IHC-no	pt2014-A1	2.8	1.7	7	21	29	7	
PT IHC-no	pt2014-A10	1.6	0.9	31	23	10	0	
PT IHC-no	pt2014-A3	1.6	1	18	29	17	0	
PT IHC-no	pt2014-A9	1.5	1	19	30	13	1	
PT IHC-no	pt2014B 03 03	3.5	1.2	474	458	49	1	
PT IHC-no	pt2014-B10	1.84	1.27	15	28	19	0	
PT IHC-no	pt2014-B4	2.43	1.22	26	30	6	0	
PT IHC-no	pt2014-B5	1.88	1.2	8	22	30	2	
PT IHC-no	pt2014-B7	1.7	1.06	23	27	12	0	
PT IHC-no	pt2015A 01 03	13.2	4.7	16	91	467	497	
PT IHC-no	pt2015A 02 05	2.85	1	500	476	88	4	
PT IHC-no	pt2015-A7	1.7	0.89	30	31	2	0	
PT IHC-no	pt2015B 04 05	2.57	1.2	329	491	219	4	
PT IHC-no	pt2015-B11	7.7	2.96	2	5	32	25	
PT IHC-no	pt2015-B13	6.6	3.38	7	23	31	2	
PT IHC-no	pt2015-B16	2.35	1.27	25	32	7	0	
PT IHC-no	pt2015-B17	1.75	1.13	31	24	8	1	
PT IHC-no	pt2015-B23	1.5	1.25	27	27	9	1	
PT IHC-no	pt2016-A2	4.05	2.38	1	3	27	30	
PT IHC-no	pt2016-A24	3.05	1.22	21	29	10	0	
PT IHC-no	pt2016-A36	2.75	1.41	23	24	13	1	
PT IHC-no	pt2016-A39	2.95	1.26	14	17	12	1	
PT IHC-no	pt2016-A8	2.15	0.91	19	24	16	2	
PT IHC-no	pt2016B 04 05	9	4.1	115	150	340	500	
PT IHC-no	pt2016-B1	4.3	2.69	1	4	28	28	
PT IHC-no	pt2016-B32	1.5	1.07	29	22	8	0	
PT IHC-no	pt2016-B33	1.55	0.97	30	22	9	0	
PT IHC-no	pt2016-B39	3.3	0.93	11	22	23	5	
PT IHC-no	pt2017-29	2.05	1.03	9	27	24	0	
PT IHC-no	pt2017-30	1.6	0.86	10	29	21	0	
PT IHC-no	pt2017-39	1.45	1.12	18	16	20	1	
PT IHC-no	pt2017-40	1.5	1.2	15	16	18	1	

PT IHC-no	pt2017A 02 03	2.4	1	537	507	68	1	
PT IHC-no	pt2017B 04 09	1.2	0.57	509	586	93	9	
PT IHC-no	pt2018-13	4.7	2.4	30	24	8	1	
PT IHC-no	pt2018-5	3.6	1	30	20	13	0	
PT IHC-no	pt2018A 02 10	7	3.5	470	89	191	243	
PT IHC-no	pt2018B 03 10	1	0.8	546	484	169	6	
PT IHC-no	pt2018B 04 07	5.3	1.3	296	585	323	5	
PT IHC-no	pt2019-3	2.7	1.3	16	31	15	2	
PT IHC-no	pt2019-5	1.8	1.2	26	30	7	1	
PT IHC-no	pt2019A 01 05	1.71	1.11	533	518	179	6	
PT IHC-no	pt2019B 04 06	1.71	1.11	585	548	122	12	
PT IHC-no	pt2020-1	4.5	3.3	0	5	34	29	
PT IHC-no	pt2020-21	2.4	1.1	18	29	21	0	
PT IHC-no	pt2020-6	3.7	1.9	18	30	20	0	
PT IHC-no	pt2020A 01 03	1.71	1.11	529	620	168	2	
PT IHC-no	pt2020B 04 05	1.2	0.57	470	560	263	8	
TMA IHC-0	vp22101	2	1.1					0
TMA IHC-0	vp22104	1.7	0.9					0
TMA IHC-0	vp22105	2.2	1					0
TMA IHC-0	vp22106	1.8	0.8					0
TMA IHC-0	vp22109	1.7	1.1					0
TMA IHC-0	vp22110	1.8	1.1					0
TMA IHC-0	vp22112	1.8	1.3					0
TMA IHC-0	vp22114	1.6	1.1					0
TMA IHC-0	vp22115	3.1	1.2					0
TMA IHC-0	vp22116	1.9	1.2					0
TMA IHC-0	vp22117	1.5	1.2					0
TMA IHC-0	vp22118	2.6	1.3					0
TMA IHC-0	vp22122	2.4	1.4					0
TMA IHC-0	vp22123	2.3	1.1					0
TMA IHC-0	vp22124	1.5	1.1					0
TMA IHC-0	vp22125	2.1	1.1					0
TMA IHC-0	vtm14-7	1.55	0.97					0
TMA IHC-0	vtm15-1	1.85	1.13					0
TMA IHC-0	vtm15-11	1.5	1.03					0
TMA IHC-0	vtm15-3	2.05	1.05					0
TMA IHC-0	vtm15-5	1.5	1					0
TMA IHC-0	vtm15-6	1.25	1.09					0
TMA IHC-0	vtm15-7	1.55	0.91					0
TMA IHC-0	vtm16-10	1.5	1.15					0
TMA IHC-0	vtm16-4	1.4	0.9					0
TMA IHC-0	vtm16-8	1.7	0.97					0
TMA IHC-0	vtm16-9	1.4	1					0
TMA IHC-1+	vp22111	2.9	1.2					1
TMA IHC-1+	vp22121	3.8	2.5					1
TMA IHC-1+	vtm14-2	3.5	1.79					1

TMA IHC-1+	vtm14-3	1.75	0.92					1
TMA IHC-1+	vtm14-5	2.65	1.26					1
TMA IHC-1+	vtm15-10	1.45	1.16					1
TMA IHC-1+	vtm16-6	1.65	0.94					1
TMA IHC-1+	vtm17-1	1.77	1.07					1
TMA IHC-1+	vtm17-2	2.33	1.62					1
TMA IHC-1+	vtm17-3	1.6	1.19					1
TMA IHC-1+	vtm17-8	1.75	1.4					1
TMA IHC-1+	vtm18-1	2.09	1.2					1
TMA IHC-1+	vtm18-5	2.39	1.32					1
TMA IHC-1+	vtm18-6	1.92	1.13					1
TMA IHC-1+	vtm18-8	2.59	1.24					1
TMA IHC-1+	vtm18-9	1.95	1.33					1
Benign	b10205804	1.8	1.2					
Benign	b10205508	1.75	1.09					
Benign	b10205505	1.75	0.97					
Benign	b10205900	1.95	1.44					
Benign	b10206008	1.75	1.17					
Benign	b10205504	1.95	1.15					
Benign	b10205503	1.75	1.21					
Benign	b10206507	2.2	1.26					
Benign	b10206505	1.9	1.23					
Benign	b10206504	1.5	0.97					
Benign	b10206201	1.65	1.27					
Benign	b10206203	1.75	1.17					
Benign	b10206609	1.95	1.24					
Benign	b10206509	2.2	1.22					
Benign	b10206305	1.5	1.07					
Benign	b10206409	1.85	1.37					
Benign	b10205303	2	1.14					
Benign	b10205205	1.75	1.13					
Benign	b10210502	1.9	1.06					
Benign	b10210409	1.75	1.13					
Benign	b10202506	1.95	1.15					
Benign	b10202705	1.85	1.19					
Benign	b10202907	2.1	1.31					
Benign	b10208704	1.65	1					
Benign	b10205121	1.65	1.1					
Benign	b10255008	2.1	1.08					
Benign	b10205409	1.85	1.16					
Benign	b10205408	1.75	1.17					
Benign	b10205809	1.81	1.23					
Benign	b10205309	1.96	1.18					
Benign	b10205401	1.7	1.06					
Benign	b10205403	2	1.18					
Benign	b11042707	1.85	1.28					

Benign	b11042407	1.9	1.12					
Benign	b11040301	1.85	1.12					
Benign	b11040102	2	1.11					
Benign	b11039608	1.95	1.08					
Benign	b11029904	2.05	1.21					
Benign	b11026502	1.75	1.06					
Benign	b11027507	1.85	1.06					
Benign	b11079265	1.95	1.18					
Benign	b11025063	1.9	1.09					
Benign	b11044905	1.85	1.19					
Benign	b11044805	1.8	1.09					
Benign	b11044005	2.1	1.2					
Benign	b11039602	1.65	1.06					
Benign	b11038705	1.85	1.06					
Benign	b11043704	1.8	1.16					
Benign	b11041504	1.9	1.03					
Benign	b11035891	1.8	1.13					
Benign	b11046104	1.87	1.23					
Benign	b11040446	1.71	1.09					