

Supplemental Table 1. DNA oligonucleotide sequences.

Oligonucleotide name	Sequence
KRT5 RT-qPCR F	CCAAGGTTGATGCACTGATGG
KRT5 RT-qPCR R	TGTCAGAGACATGCGTCTGC
KRT8 RT-qPCR F	TCCATCAGGGTGACTCAGAAA
KRT8 RT-qPCR R	CCAGCTTCAAGGGGCTCAA
TACSTD2 RT-qPCR F	AGACCAAAGCCTGCGCTGCG
TACSTD2 RT-qPCR R	AGCTGGGGTGCAGCTTGTAG
TCN2 RT-qPCR F	TGAACCACAAGACCTACATTGATC
TCN2 RT-qPCR R	GTGAATCCTCCTAACTCATGGG
KRT18 RT-qPCR F	TGCCAGCTCTGGGTTGACCG
KRT18 RT-qPCR R	TGTGGTGCTCTCCTCAATCTGCTG
ALDH1A1 RT-qPCR F	ATGGATGCTTCCGAGAGG
ALDH1A1 RT-qPCR R	GCCACATACACCAATAGGTTC
OCT4 RT-qPCR F	AGAACATGTGTAAGCTGCGG
OCT4 RT-qPCR R	GTTGCCTCTCACTCGGTTC
CDH1 RT-qPCR F	GAACGCATTGCCACATACAC
CDH1 RT-qPCR R	ATTCGGGCTTGTTGTCATTC
CDH2 RT-qPCR F	ATCCTACTGGACGGTTTCG
CDH2 RT-qPCR R	TTGGCTAATGGCACTTGA
VIM RT-qPCR F	CGCCATCAACACCGAGTTC
VIM RT-qPCR R	ATCTTATTCTGCTGCTCCAGGAA
FN RT-qPCR F	CCATCGCAAACCGCTGCCAT
FN RT-qPCR R	AACACTTCTCAGCTATGGGCTT
AR RT-qPCR F	GGCGGGCCAGGAAAGCGACT
AR RT-qPCR R	TCCCTGGCAGTCTCCAAACGCAT

Supplemental Table S2 Cluster marker gene expression

Cluster	Gene	Log2 Fold Change	Adj P-value
2	KRT18	0.81	1.3e-54
2	KRT8	0.43	8.6e-8
7	KRT5	0.85	2.4e-69
7	TP63	1.49	1.9e-29
4	VIM	2.36	6.0e-158
4	CDH2	3.66	2.1e-101
4	FN1	0.95	1.3e-13
9	TACSTD2	2.60	2.2e-17
9	CXCL17	3.77	6.2e-3
9	KLK10	4.22	4.0e-58
9	KLK8	4.02	1.0e-34
9	KLK5	3.85	2.6e-28