

Supplementary Table 1. Summary of the differences between the mRECIST and RANO-BM assessment criteria.

	mRECIST	RANO-BM
Measurable lesions	≥ 5 mm in one diameter	≥ 10 mm in one diameter
Complete response (CR)	Complete disappearance of all lesions	Complete disappearance of all lesions sustained for at least 4 weeks No steroid use Clinical status stable/improved
Partial response (PR)	At least 30% decrease in the sum longest diameter of CNS target lesions	At least 30% decrease in the sum longest diameter of CNS target lesions, no new lesions, stable to decreased steroid dose, Clinical status stable/improved
Stable disease (SD)	Does not meet the criteria for CR, PR, or PD	
Progressive disease (PD)	At least 20% increase in the sum longest diameter of CNS target lesions, at least one lesion must increase by an absolute value of 5 mm or more.	At least 20% increase in the sum longest diameter of CNS target lesions, at least one lesion must increase by an absolute value of 5 mm or more. New lesion (In the case of immunotherapy-based treatment, new lesions alone may not constitute progressive disease) Unequivocal progression of existing tumor-related non-enhancing (T2/FLAIR) CNS lesions (non-target lesions)

Abbreviations: mRECIST, modified Response Evaluation Criteria for Solid Tumor; RANO-BM, Response assessment in Neuro-oncology Brain Metastases.

Supplementary Table 2. Intracranial overall response rate and disease control rate by mRECIST according to the PD-L1 status

PD-L1 status (22C3)	< 1% (n = 7)	1%–50% (n = 11)	≥ 50% (n = 22)
Intracranial ORR	57% (n = 4)	27% (n = 3)	50% (n = 11)
Intracranial DCR	57% (n = 4)	73% (n = 8)	59% (n = 13)
PD-L1 status (SP263)	< 1% (n = 7)	1%–50% (n = 10)	≥ 50% (n = 22)
Intracranial ORR	57% (n = 4)	30% (n = 3)	36% (n = 8)
Intracranial DCR	57% (n = 4)	70% (n = 7)	55% (n = 12)
PD-L1 status (SP142)	0 or 1 (n = 14)	2 (n = 7)	3 (n = 6)
Intracranial ORR	42% (n = 6)	43% (n = 3)	33% (n = 2)
Intracranial DCR	57% (n = 8)	57% (n = 4)	67% (n = 4)

Abbreviations: ORR, overall response rate; DCR, disease control rate.

Supplementary Fig. 1 Intracranial progression-free survival according to PD-L1 expression (a) 22C3 (b) SP263 (c) SP142

