

**Supplementary Table S3. Unadjusted restricted mean survival time (RMST) analysis of anti-PD-(L)1 monotherapy real-world PFS (rwPFS) and overall survival (OS) stratified by IRS status in the monotherapy validation cohort**

Endpoint	Restricted Time		RMST Estimate	
	(tau)	IRS Status	(95% CI)	p-value
rwPFS	24 months	IRS-L	7.3 (5.9-8.8)	<0.0001
	24 months	IRS-H	14.2 (12.3-16.0)	
OS	36 months	IRS-L	16.7 (14.2-19.1)	<0.0001
	36 months	IRS-H	24.2 (21.5-26.9)	

As in **Figure 1B&C** except unadjusted RMST analysis was used to compare anti-PD-(L)1 monotherapy rwPFS (at 24 months) and OS (at 36 months) stratified by IRS status. p-value is for the test of RMST equality between IRS-L and IRS-H.