

Table S1. Immune checkpoint inhibitors used in clinical practice for solid tumors.

ICI	Target	Indications
<i>Single agents</i>		
Ipilimumab	CTLA4	Melanoma (metastatic)
Pembrolizumab	PD1	Melanoma (metastatic, adjuvant) Non-small cell lung cancer (metastatic, PD-L1 >50% for first line, PD-L1 >1% for pre-treated patients) Urothelial carcinoma (metastatic, pre-treated – PD-L1>10 platinum-unfit for first line) Head and neck squamous cancer (metastatic) MSI-H solid tumors
Nivolumab	PD1	Melanoma (metastatic, adjuvant) Non-small cell lung cancer (metastatic, pre-treated) Renal cell carcinoma (metastatic, pre-treated) Urothelial carcinoma (metastatic, pre-treated) Head and neck squamous cancer (metastatic, pre-treated) Esophageal carcinoma (adjuvant, metastatic) Gastric adenocarcinoma (metastatic)
Cemiplimab	PD1	Cutaneous squamous cell carcinoma
Atezolizumab	PD-L1	Non-small cell lung cancer (metastatic, PD-L1 >50% for first-line, or pre-treated) Urothelial carcinoma (metastatic, pre-treated – PD-L1>5% platinum-unfit for first line)
Avelumab	PD-L1	Merkel cell carcinoma (metastatic) Urothelial carcinoma (metastatic, pre-treated or maintenance after platinum-based 1 st line CT)
Durvalumab	PD-L1	Non-small cell lung cancer (stage III, PD-L1 >1% stable to CT+RT)
<i>Combinations</i>		
Nivolumab + Ipilimumab	PD1 + CTLA4	Metastatic melanoma Non-small cell lung cancer (1 st line) Renal cell carcinoma (intermediate-poor risk, 1 st line) Pleural mesothelioma (metastatic)

		Colo-rectal cancer (MSI-H, pre-treated)
Durvalumab + CT	PD-L1 + CT	Small cell lung cancer (extended stage, 1 st line)
Atezolizumab + bevacizumab	PD-L1 + anti-VEGF	Hepatocellular carcinoma (metastatic, 1 st line)
Pembrolizumab + CT	PD1 + CT	Head and neck squamous cancer (metastatic, 1 st line)
Pembrolizumab + axitinib	PD1 + TKI	Renal cell carcinoma (metastatic, 1 st line)
Pembrolizumab + lenvatinib	PD1 + TKI	Renal cell carcinoma (metastatic, 1 st line) Endometrial carcinoma (metastatic, pre-treated)
Avelumab + axitinib	PD-L1 (+ TKI)	Renal cell carcinoma (metastatic, 1 st line)
Atezolizumab + CT	PD-L1 + CT	Small cell lung cancer (extended stage, 1 st line) Triple-negative breast cancer (metastatic, 1 st line, PD-L1 >1%)

CT: chemotherapy; CTLA4: cytotoxic T-lymphocyte-associated antigen 4; EMA: European Medical Agency; FDA: Food and Drug Administration; MSI-H: microsatellite instability-high; PD1: programmed death 1; PD-L1: programmed death-ligand 1; RT: radiotherapy; TKI: tyrosine kinase inhibitor; VEGF: vascular endothelial growth factor.