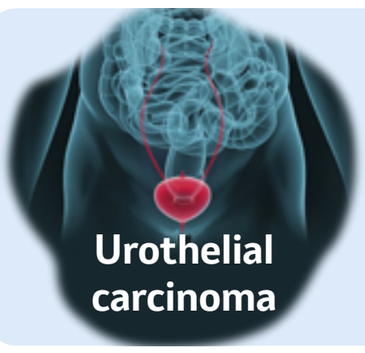
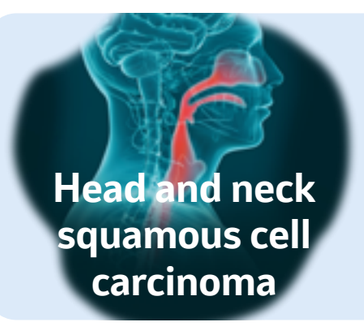
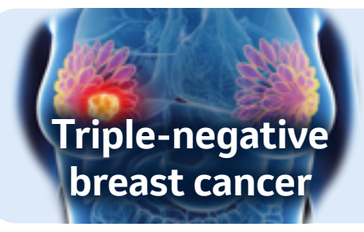
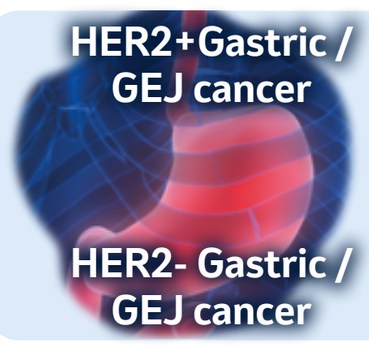
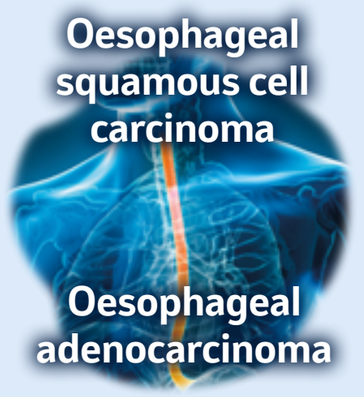
PD-L1 TESTING - REIMBURSED INDICATIONS [1]

Date of last revision 01/2024.

INDICATION	DISEASE STAGE	TREATMENT	ALGORITHM	RECOMMENDED CLONES	CUT-OFF
 Non-small cell lung cancer	Neo-adjuvant	Resectable, at high risk of recurrence	Nivolumab + platinum [6]	TPS	• 28-8 PharmDx assay	≥ 1%
	Adjuvant	At high risk of recurrence after complete resection and adjuvant platinum-based chemotherapy	Atezolizumab [3]	TC	• Ventana PD-L1 (SP263) assay	≥ 50%
	1L	Metastatic	Pembrolizumab [2]	TPS	• 22C3 PharmDx assay • 22C3 LDT • Ventana PD-L1 (SP263) Assay	≥ 50%
		Locally advanced (chemoradiation-ineligible), or metastatic	Cemiplimab [5]			≥ 50%
		Locally advanced, unresectable	Cemiplimab + platinum‡ [5] *with no EGFR, ALK or ROS1 gene alterations*			≥ 1%
		Locally advanced, unresectable	Durvalumab [4] *if no progression after platinum-based chemoradiotherapy*			≥ 1%
		Metastatic	Atezolizumab [3]	TC	• SP142 assay	≥ 50%
				IC		≥ 10%
	2L	Locally advanced or metastatic	Pembrolizumab [2]	TPS	• 22C3 PharmDx assay • 22C3 LDT • Ventana PD-L1 (SP263) Assay	≥ 1%
 Urothelial carcinoma	Adjuvant	Muscle invasive urothelial carcinoma (MIUC) at high risk of recurrence after radical resection	Nivolumab [6]	TC	• 28-8 PharmDx assay	≥ 1%
	1L	Locally advanced or metastatic *platinum-ineligible*	Pembrolizumab [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 10
			Atezolizumab [3]	IC	• Ventana PD-L1 (SP142) Assay	≥ 5%
 Head and neck squamous cell carcinoma	1L	Metastatic or unresectable recurrent	Pembrolizumab *with or without platinum+5-FU* [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 1*
 Triple-negative breast cancer	1L	Unresectable locally advanced or metastatic	Pembrolizumab + chemotherapy [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 10
 HER2+Gastric / GEJ cancer	1L	Metastatic	Pembrolizumab + trastuzumab + platinum + flouropyrimidine [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 1
HER2- Gastric / GEJ cancer	1L	Unresectable advanced, recurrent or metastatic	Nivolumab + platinum + fluoropyrimidine [6]	CPS	• 28-8 PharmDx assay	≥ 5
		Locally advanced unresectable or metastatic	Pembrolizumab + platinum + fluoropyrimidine [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 1
 Oesophageal squamous cell carcinoma	1L	Locally advanced unresectable or metastatic	Pembrolizumab + platinum + fluoropyrimidine [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 10
		Unresectable advanced, recurrent or metastatic	Nivolumab + platinum + fluoropyrimidine [6]	TPS	• 28-8 PharmDx assay	≥ 1%
Oesophageal adenocarcinoma	1L	Locally advanced unresectable or metastatic	Pembrolizumab + platinum + fluoropyrimidine [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 10
		Unresectable advanced, recurrent or metastatic	Nivolumab + platinum + fluoropyrimidine [6]	CPS	• 28-8 PharmDx assay	≥ 5
 Cervical cancer	1L	Persistent, recurrent, or metastatic	Pembrolizumab + chemotherapy ± bevacizumab [2]	CPS	• 22C3 PharmDx assay • 22C3 LDT	≥ 1

*To be reported as CPS<1, CPS≥1 or CPS≥20

PD-L1 SCORING ALGORITHMS [a-c]

TPS / TC [a,c] = $\frac{\text{\#PD-L1 staining tumour cells}}{\text{Total \# viable tumour cells}}$ X 100

CPS [b] = $\frac{\text{\#PD-L1 staining cells (tumour cells, lymphocytes, macrophages)}}{\text{Total \# viable tumour cells}}$ X 100

IC [c] = $\frac{\text{Tumor area occupied by PD-L1 stained immune cells (lymphocytes, macrophages, dendritic cells, granulocytes)}}{\text{Total tumour area}}$ X 100

‡ Only drugs that are officially reimbursed in Belgium for the specific tumor indications are displayed on the poster.

References:

1. Website RIZIV / INAMI: pembrolizumab, durvalumab, atezolizumab, nivolumab, cemiplimab (https://ondpanon.riziv.fgov.be/SSPWebApplicationPublic/fr/Public/ProductSearch or https://ondpanon.riziv.fgov.be/SSPWebApplicationPublic/nl/Public/ProductSearch, last accessed on 01/2024).
2. SmPC KEYTRUDA®.
3. SmPC TECENTRIQ®.
4. SmPC IMFINZI®.
5. SmPC LIBTAYO®.
6. SmPC OPDIVO®.

a. PD-L1 IHC 22C3 pharmDx Interpretation Manual, NSCLC. **b.** PD-L1 IHC 22C3 pharmDx Interpretation Manual, Urothelial Carcinoma. **c.** Ventana PD-L1 (SP142) Assay Interpretation Guide.

1L: First line; 2L: Second line; TPS: Tumor Proportion Score; CPS: Combined Positive Score; GEJ: Gastroesophageal; HER2: Human epidermal growth factor receptor 2; LDT: Laboratory Developed Test; IC: Immune cells; ROS: Reactive Oxygen Species; TC: Tumor cells; 5-FU: 5-fluorouracil; PD-L1: Programmed death-ligand 1; EGFR: epidermal growth factor receptor; ALK: anaplastic lymphoma kinase.

Developed in collaboration with MSD. Responsible editor : Belgian Society of Pathology • Date of last revision 01/2024.