

## Programmed Death Ligand 1 (PD-L1) Immunohistochemistry

### Test Description

This test is useful for identification of neoplasms expressing programmed cell death 1-ligand 1 (clone SP263). PD-L1 also known as B7 homolog 1 (B7-H1) or CD274, is a transmembrane protein involved in the regulation of cell-mediated immune responses through interaction with the receptor programmed death protein-1 (PD-1). PD-L1 has been identified as both a prognostic and theranostic marker in a variety of neoplasms. Overexpression of PD-L1 has been observed in carcinomas of the urinary bladder, lung, thymus, colon, pancreas, ovary, breast, kidney, and in melanoma and glioblastoma.

### Specimen

**Sample Type:** FFPE block SB-10568/23

**Site:** Pancreas

**Pathology ID:** MOLQ/IHC-01122023

**Disease:** Pancreatic Carcinoma

### Scoring

The scoring system is based on type and origin of tumor. If additional interpretation or analysis is needed, send request for Pathology Consultation.

### Methodology

Immunostaining for PD-L1 protein was done using Ventana Rabbit Anti-Human PD-L1/CD274 Monoclonal Antibody (Clone SP-263) on Ventana Autostainer.

Positive PD-L1 staining/expression is defined as complete and/or partial, circumferential or linear plasma membrane or cytoplasmic staining at any intensity that can be differentiated from background.

### Note

Preclinical studies suggest that positive programmed cell death 1-ligand 1 (PD-L1) immunohistochemistry in tumor cells may predict tumor response to therapy with immune checkpoint inhibitors. This result should not be used as the sole factor in determining treatment, as other factors (eg, tumor mutation burden and microsatellite instability) have also been studied as predictive markers.

### References

1. Rosai and Ackerman's Surgical Pathology.
2. Modern Surgical Pathology.
3. PD-L1 and gastric cancer prognosis: A systematic review and meta-analysis. Lihu Gu, Manman Chen, Dongyu Guo, Hepan Zhu, Wenchao Zhang. PLOS ONE August 2017
4. Immunotherapy in Advanced Gastric Cancer: An Overview of the Emerging Strategies Helena Magalhães, Mário Fontes-Sousa, and Manuela Machado. Canadian Journal of Gastroenterology and Hepatology, Volume 2018, 8 pages
5. Immunotherapy in Prostate Cancer: Recent Advances and Future Directions Ida Silvestri et al. EMJ Urol. 2019;7[1]:51-61.

### Reviewed By



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### Clinician

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Medical Facility: Dr AV Institute of Personalized Cancer Therapy and Research

Pathologist: Not Provided

### Impression

**Programmed Death Ligand 1 (PD-L1): Negative**

### Microscopy Evaluation

**Scanty tumor cells. The tumor cells are negative for PD-L1.**

### Interpretation

1. Positive PD-L1 staining/expression is defined as complete and/or partial, circumferential or linear plasma membrane staining at any intensity that can be differentiated from background and diffuse cytoplasmic staining.
2. The percentage of tumor cells that exhibit PDL1 expression is recorded as PD-L1 tumor cell (TC) score.

### Disclaimer

1. The tests are carried out in the lab with the presumption that the specimen belongs to the patient named or identified in the bill/test request form.
2. The test results relate specifically to the sample received in the lab and are presumed to have been generated and transported per specific instructions given by the physicians/laboratory.
3. The reported results are for information and are subject to confirmation and interpretation by the referring doctor.
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