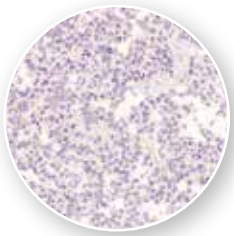
Cell Control Arrays

Cell Control Slides PD-L1

ZYTOMED SYSTEMS

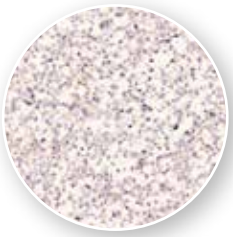
Cell Control Slides PD-L1 (graded)

For standardization of your PD-L1 immunohistochemistry



1

Negative cell line



2

Low expressing cell line

3

Medium expressing cell line

4

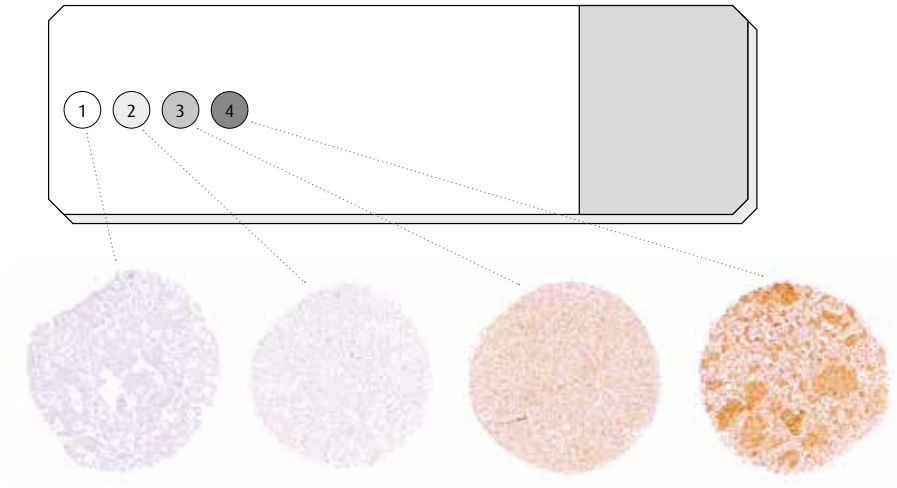
High expressing cell line

PD-L1 (Programmed Cell Death Ligand 1, also known as CD274) is a receptor ligand which is expressed by hematopoietic and non-hematopoietic cells, such as T- and B-lymphocytes and various types of tumor cells. PD-L1 is a type-I transmembrane protein.
Binding of PD-L1 to its receptor PD1 inhibits T-cell activation and cytokine production. This mechanism renders PD-L1 overexpressing tumor cells resistant to T cell-mediated lysis. Immunohistochemical detection of the PD-L1 protein is of great importance for the use of novel anticancer drugs such as checkpoint inhibitors. The Cell Control Slides PD-L1 are suitable for optimisation of immunohistochemical detection of PD-L1 protein in tissues. One PD-L1-negative cell line core and 3 cell line cores with graded amounts of PD-L1 are attached to the slides. Immunochemical staining of the cell lines allows for a qualitative control of PD-L1 detection. Because cell lines with different PD-L1 expression levels are included it is easy to optimise the immunochemical detection method. The negative cell line core will show no staining.
All cores have a diameter of 2 mm. The cells are fixed in buffered formalin and embedded in paraffin. The sections are cut at 4 µm, attached to coated slides and dried over night at 37° C.
The small size of the sections allows for simultaneous mounting of patient tissue sections on the same slide. Therefore you will have an on-slide control array staining (OSCAR) proving a regular stain even after years of storage. PD-L1 antibody clones E1L3NPD-L1, SP263, and CAL10 were used for testing PD-L1 expression of the cell cores with comparable results.

Each slide contains 4 cell line cores with a graded amounts of PD-L1.

Core	Amount of PD-L1	Cell line
1	Negative	Ductal breast carcinoma
2	Low Expression	Osteosarcoma
3	Medium Expression	Fibrosarcoma
4	High Expression	T-Cell Non-Hodgkin Lymphoma

The picture below shows the orientation of the different cores. Immunohistochemical staining with a PD-L1 antibody will typically lead to cytoplasmic and membranous staining patterns.



PD-L1 (clone CAL10) on Cell Control Slide PD-L1

Cell Control Arrays

Cell Control Slides PD-L1

ZYTOMED SYSTEMS

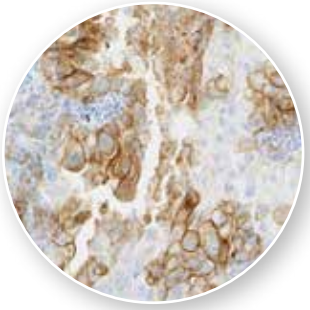
Cell Control Slides PD-L1 (graded)

Description	Status	Amount	Cat. No.
Cell Control Slides PD-L1 (graded)	RUO	5 slides	CCS-PDL1-G

Rabbit monoclonal antibody against PD-L1, clone CAL10

Immunohistochemistry of PD-L1 is regarded to be predictive for a variety of immune therapies targeting so called checkpoint inhibitors. It is routinely performed using either diagnostic companion kits (Companion Diagnostics), which are high priced and require corresponding protocols, immunostainers, software and analysis algorithms or, in-house validated protocols using freely available antibodies.

There are several publications available comparing PD-L1, clone CAL10, to FDA approved PD-L1 clones SP263, 22-C3 and 28-8 in both rare and prevalent cancer types in immunohistochemical studies. These studies showed a significant correlation of expression and expression intensity as well as a good overall concordance of the tested clones [1, 2].



PD-L1 (CAL10)
on squamous cell carcinoma of the lung

Rabbit monoclonal antibody against PD-L1

Description	Status	Method	Format	Dilution	Volume	Cat. No.
PD-L1 (CD274) Clone: CAL10 Host: Rabbit	CE/IVD	P	Ready-to-use	-	6 ml	RBG063
			Concentrate	1:50 – 1:100	0.5 ml	RBK063-05

PD-L1 (CAL10) on melanoma

Literature

[1] Shimanovsky A *et al.*, Journal of Clinical Oncology 35:15, 2017 (suppl; abstr e20003)

[2] Karnik T *et al.*, Human Pathology 72: 28-34, 2018

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