

Cell Control Slides PD-L1 (graded)

REF / Cat. No.: CCS-PDL1-G

Instructions for use

Intended use

The Cell Control Slides PD-L1 are designed for the qualitative control of immunochemical stains. Attached to the slides are 4 different cores of cell lines expressing different levels of PD-L1. One core is negative, the other 3 show low, medium and high expression of PD-L1.

The Cell Control Slides are intended for research use only.

Summary and Explanation

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 amount 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.

Reagents provided

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5 slides **Cell Control Slides PD-L1 (graded)**

Storage and handling

The sections should be stored refrigerated within the provided box. Please do not freeze the slides. When slides are taken from the box it is important to avoid condensation of air moisture on the remaining slides. To avoid degradation, the control slides should be brought to room temperature directly before the staining. Use of the slides within 3 months after despatch is recommended. High air moisture and high temperature reduce the shelf life.

Precautions

Use by qualified personnel only.

Health hazards should not be expected. However, the Cell Control Slides PD-L1 should be handled as potential infectious formalin fixed paraffin embedded human tissue. Wear proper protection clothing.

A Material Safety Data Sheet (MSDS) is available upon request.

Expected results

Each slide contains 4 cell line cores with a graded amount 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.



Troubleshooting

If you observe unusual staining or other deviations from the expected results which could possibly be caused by the product, please read these instructions carefully, contact Zytomed Systems' technical support or your local distributor.

Limitations of the procedure

A large number of factors can considerably influence the immunohistochemical staining quality on these cell control slides. Especially the sensitivity of the chosen detection system, the chromogenic substrate and the chosen antibody will influence the staining intensity. The storage conditions, age of the slides as well as the used hematoxylin can influence the staining intensity.

It is therefore always recommended to use the control slides in combination with tumour tissue of various PD-L1 expression levels to establish IHC reagents and dilution factors of antibodies.

Performance characteristics

Zytomed Systems has conducted studies to evaluate the performance of the product. The product has been found to be suitable for the intended use.

References

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 Tokito T et al. Eur J Cancer 55:7-14, 2016
 Kakavand H et al. Mod Pathol 28:1535-1544, 2015

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Explanation of the symbols on the product label:

REF	Bestellnummer Catalog Number Reference du catalogue		Verwendbar bis Use By Utiliser jusque		Gebrauchsanweisung beachten Consult Instructions for use Consulter les instructions d'utilisation
LOT	Chargenbezeichnung Batch Code Code du lot		Lagerungstemperatur Temperature Limitation Limites de température	RUO	Nur für Forschungszwecke For Research Use Only Pour la recherche uniquement
IVD	In vitro Diagnostikum In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro		Achtung/Gefahr Warning/Danger Attention/Danger		Achtung Warning Attention
	Achtung/Gefahr Warning/Danger Attention/Danger		Gefahr Danger Danger		Hersteller / Manufacturer / Fabricant Zytomed Systems GmbH Anhaltinerstraße 16 14163 Berlin, Germany Tel: (+49) 30-804 984 990 www.zytomed-systems.de
	Achtung/Gefahr Warning/Danger Attention/Danger		Achtung/Gefahr Warning/Danger Attention/Danger		