



Cell Control Block PD-L1 (graded)

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

Instructions for use

Intended use

The Cell Control Block PD-L1 (graded) is designed for the qualitative control of immunochemical staining. The array contains cell lines expressing different levels of PD-L1. One cell line is PD-L1 negative whereas the other three cell lines show low to strong expression of PD-L1.

It is 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 tumour 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 tumour 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.

The cell control block contains one PD-L1-negative cell line core and 3 cell line cores with graded amount of PD-L1. 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 and are at least 3 mm high. The cells are fixed in buffered formalin and embedded in paraffin. 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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1 Block **Cell Control Block PD-L1 (graded)**

Storage and handling

The block should be stored in a dry place at room temperature within the provided box. Avoid freezing below -15° as the block may crack. Please insert the block in the microtome with caution because otherwise it also may crack.

The sections (3-5 µm) should be mounted on adhesive slides and dried at 37°C over night or for 2 h at 65°C.

Provided that the block is regularly cut 150-170 sections can be made from one block; up to 400 section are possible.

The number of sections depends on the frequency of cutting and the thickness of the sections. Each cell line core are at least 3 mm high but can differ slightly from array to array.

Sections can be stored up to 6 weeks, although we suggest using freshly prepared sections. The cell line cores are covered with a thin paraffin layer due to production technique. As soon as the paraffin layer is cut away at all cell line cores the sections are ready for use.

Precautions

Use by qualified personnel only.

Health hazards should not be expected. However, the block should be handled as potential infectious formalin fixed paraffin embedded human tissue. Wear proper protection clothing.

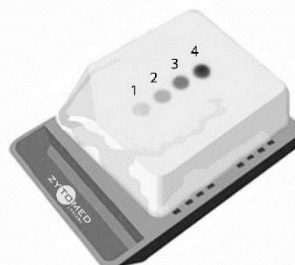
A material safety data sheet (MSDS) is available upon request.

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. Immunochemical 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 the cell control block. Especially the sensitivity of the chosen detection system, the chromogenic substrate, the pre-treatment buffer (Citrate- or TRIS/EDTA- Buffer) and the chosen antibody will influence the staining intensity. The thickness of the tissue sections, temperature used for drying, 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. Zytomed Systems guarantees that the product will meet all requirements described from its shipping date until its expiry date, as long as the product is correctly stored and utilized. No additional guarantees can be given. Under no circumstances shall Zytomed System be liable for any damages arising out of the use of the reagent provided.

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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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		