

Perforin 1 (5B10)


Mouse anti-human Perforin Monoclonal Antibody (Clone 5B10)

REFERENCES AND PRESENTATIONS¹

- **ready-to-use** (manual or LabVision AutoStainer)
MAD-000182QD-3
MAD-000182QD-7
MAD-000182QD-12
- **Ready-to-use (MD-Stainer)²**
MAD-000182QD-3/V
MAD-000182QD/V
- **concentrated**
MAD-000182Q - 1:20 recommended dilution

COMPOSITION

Anti-human Perforin mouse monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

INTENDED USE : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: 5B10

Ig ISOTYPE: Mouse IgG1

IMMUNOGEN: Recombinant protein encoding C-terminal region of human perforin.

SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species

DESCRIPTION AND APPLICATIONS: Perforin is a protein that induces the formation of pores in cell membrane; is located in the cytoplasmic granules of cytotoxic cells. They bind the cells expressing foreign antigens and induce their lysis by the production of pores in the cytoplasmic membrane of target cells. Cytotoxic T cells and NK cells are characterized by the presence in their cytoplasmic azurophilic granules of cytotoxic proteins (such as restricted to TIA-1, granzyme B and perforin). Perforin is constitutively expressed in NK cells, large granular T lymphocytes and gamma / delta T cells in smaller amounts. In CD8 T cells perforin expression can be induced, although



with less intensity than in previous cell. Perforin is useful for identifying T and NK cell lymphomas. It is positive in peripheral T lymphoma, T lymphomas with cytotoxic phenotype, NK lymphomas, extranodal NK / T cell lymphoma (nasal type T lymphoma and the subcutaneous panniculitis-like T cell lymphoma), in T cell lymphoma associated with enteropathy. Contrary the gamma/delta hepatosplenic T-cell lymphoma is usually negative. Perforin can also be useful in the assessment of cytotoxic cells in the graft versus host disease, in chronic renal rejection and in the study of atopic dermatitis.

IHC POSITIVE CONTROL: Tonsil

VISUALIZATION: Cytoplasm

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Vitro S.A EDTA buffer pH8³ for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  Stored at 2-8°C. Do not freeze.  Once the packaging has been opened it can be stored until the expiration date of the reagent indicated on the label. If the reagent has been stored under other conditions to those indicated in this document, the user must first check its correct performance taking into account the product warranty is no longer valid.

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:
- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).
- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).
For different presentations (references / volumes) please contact the supplier.

² For Technical specifications for MD-Stainer, please contact your distributor.

³ Ref: MAD-004072R/D



WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS










This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

BIBLIOGRAPHY

1. Lichtenheld MG, Olsen KJ, Lu P, Lowrey DM, Hameed A, Hengartner H, Podack ER. Structure and function of human perforin. *Nature* 335: 448-451 (1988).
2. Hameed A, Olsen KJ, Cheng L, Fox WM 3rd, Hruban RH, Podack ER. Immunohistochemical identification of cytotoxic lymphocytes using human perforin monoclonal antibody. *American Journal of Pathology* 140: 1025-1030 (1992).
3. Leger-Ravet MB, Devergne O, Peuchmaur M, Solal-Celigny P, Brousse N, Gaulard P, Galanaud P, Emilie D. In situ detection of activated cytotoxic cells in follicular lymphomas. *Am J Pathol.* 144: 492-499 (1994).
4. Yawalkar N, Schmid S, Braathen LR, Pichler WJ. Perforin and granzyme B may contribute to skin inflammation in atopic dermatitis and psoriasis. *Br J Dermatol.* 144:1133-1139 (2001).
5. Kamarashev J, Burg G, Mingari MC, Kempf W, Hofbauer G, Dummer R. Differential expression of cytotoxic molecules and killer cell inhibitory receptors in CD8+ and CD56+ cutaneous lymphomas. *Am J Pathol.* 158:1593-1598 (2001).
6. Garcia-Cosio M, Santon A, Mendez MC, Rivas C, Martin C, Bellas C. Nasopharyngeal/nasal type T/NK lymphomas: analysis of 14 cases and review of the literature. *Tumori.* 89: 278-284 (2003).

LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Expiration date
	Temperature limit
	Manufacturer
	Sufficient content for <n> assays
	Catalog number
	Lot code
	Refer to the instructions of use
	Medical product for <i>in vitro</i> diagnosis.
	Material safety data sheet



Vitro S.A

Calle Luís Fuentes Bejarano 60 Ed. Nudo Norte Local 3 41020 Sevilla (Spain)
Tel: +34 954 933 200. viro@vitro.bio ; www.vitro.bio



Rev.: 2020-09-21