

Datasheet: MCA6138PE

Description:	MOUSE ANTI HUMAN PERFORIN:RPE
Specificity:	PERFORIN
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	dG9
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.

Target Species

Human

Species Cross Reactivity

Reacts with: Bovine

Does not react with: Mouse

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
	RPE 561nm laser	546	578

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture

supernatant

Buffer Solution Phosphate buffered saline

Preservative <0.1% Sodium Azide (NaN₃)
Stabilisers 0.2% Bovine Serum Albumin

Immunogen Purified granules from human YT lymphoma cell line

External Database Links

UniProt:

[P14222](#) [Related reagents](#)

Entrez Gene:

[5551](#) PRF1 [Related reagents](#)

Synonyms PFP

Specificity **Mouse anti Human perforin, clone dG9** recognizes perforin a 60-70 kDa glycoprotein largely expressed in CD8+ cytotoxic T lymphocytes and Natural Killer cells. It aids in defense against virus-infected or neoplastic cells by inducing apoptosis. Perforin achieves this by inserting a portion of its C-terminus region into the lipid membrane of the target in a calcium dependent manner. Subsequent polymerization with other perforin molecules forms a pore in the membrane. These pores allow the free influx and efflux of ions and proteins through the cell membrane. This disruption to homeostasis results in tonic shock which can ultimately lead to apoptosis and DNA degradation ([Osinska et al. 2014](#)).

Genetic abnormalities to the perforin gene have been shown to be linked to abnormal immune system functioning, the development of immune diseases as well as lymphomas and leukemias ([Osinska et al. 2014](#)).

This clone dG9 has been used in flow cytometry experiments to examine intracellular perforin in tumour specific CD8+ T cells incubated with autologous primary breast cancer cells and Tregs ([Su et al. 2017](#)).

Purity >95% by SDS PAGE

Flow Cytometry Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul

Storage Store at +4°C. DO NOT FREEZE.
This product should be stored undiluted. This product is photosensitive and should be protected from light.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:RPE \(MCA691PE\)](#)

Recommended Useful Reagents

[LEUCOPERM \(BUF09B\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M353630:190509'

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