abcam

Product datasheet

Anti-Perforin antibody [CB5.4] ab16074

5 Abreviews 29 References

Overview

Product name	Anti-Perforin antibody [CB5.4]
Description	Rat monoclonal [CB5.4] to Perforin
Host species	Rat
Tested applications	**Suitable for:** IP, ICC, WB, IHC-Fr, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse
Immunogen	Recombinant fragment, corresponding to amino acids 98 - 534 of Mouse Perforin.
Epitope	This antibody recognizes mouse perforin, region amino acids 402-534.
General notes	This product was changed from ascites to tissue culture supernatant on 31st May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	CB5.4
Isotype	IgG2a

Applications

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab16074 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC		Use at an assay dependent concentration.
WB	★★★★★ (1)	Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
IHC-P	★★★☆☆ (3)	Use at an assay dependent concentration.
ICC/IF	★★★★☆ (1)	Use at an assay dependent concentration.

Target

Function Plays a key role in secretory granule-dependent cell death, and in defense against virus-infected or neoplastic cells. Plays an important role in killing other cells that are recognized as non-self by the immune system, e.g. in transplant rejection or some forms of autoimmune disease. Can insert into the membrane of target cells in its calcium-bound form, oligomerize and form large pores. Promotes cytolysis and apoptosis of target cells by facilitating the uptake of cytotoxic granzymes.

Involvement in disease Defects in PRF1 are the cause of hemophagocytic lymphohistiocytosis familial type 2 (FHL2) [MIM:603553]; also known as HPLH2. Familial hemophagocytic lymphohistiocytosis (FHL) is a genetically heterogeneous, rare autosomal recessive disorder. It is characterized by immune dysregulation with hypercytokinemia and defective natural killer cell function. The clinical features of the disease include fever, hepatosplenomegaly, cytopenia, hypertriglyceridemia, hypofibrinogenemia, and neurological abnormalities ranging from irritability and hypotonia to seizures, cranial nerve deficits, and ataxia. Hemophagocytosis is a prominent feature of the disease, and a non-malignant infiltration of macrophages and activated T lymphocytes in lymph nodes, spleen, and other organs is also found.

Sequence similarities Belongs to the complement C6/C7/C8/C9 family.
Contains 1 C2 domain.
Contains 1 EGF-like domain.
Contains 1 MACPF domain.

Domain The C2 domain mediates calcium-dependent binding to lipid membranes. A subsequent conformation change leads to membrane insertion of beta-hairpin structures and pore formation. The pore is formed by transmembrane beta-strands.

Post-translational modifications N-glycosylated.

Cellular localization Cytoplasmic granule lumen. Secreted. Cell membrane. Endosome lumen. Stored in cytoplasmic granules of cytolytic T-lymphocytes and secreted into the cleft between T-lymphocyte and target cell. Inserts into the cell membrane of target cells and forms pores. Membrane insertion and pore formation requires a major conformation change. May be taken up via endocytosis involving clathrin-coated vesicles and accumulate in a first time in large early endosomes.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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