Product datasheet

Anti-Perforin antibody [B-D48] ab47225

8 References  1 Image

Overview

Product name       Anti-Perforin antibody [B-D48]
Description        Mouse monoclonal [B-D48] to Perforin
Host species       Mouse
Tested applications Suitable for: WB, Flow Cyt, IHC-Fr, IHC-P
Species reactivity  Reacts with: Human
Immunogen          Recombinant human perforin.
Positive control   IHC-P: Human spleen FFPE tissue sections.

Properties

Form               Liquid
Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer     Constituent: PBS
                     Sterile-filtered through 0.22 µm and treated to remove endotoxins.
Purity             Ion Exchange Chromatography
Clonality          Monoclonal
Clone number       B-D48
Myeloma            x63-Ag8.653
Isotype            IgG1

Applications

Our Abpromise guarantee covers the use of ab47225 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 70 kDa.</td>
</tr>
</tbody>
</table>
### 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

### 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.

### Images

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. &lt;br&gt;<strong>ab170190</strong> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use a concentration of 20 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
</tr>
</tbody>
</table>
IHC image of Perforin staining in human spleen formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab47225, 10µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors