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Product datasheet

Anti-Granzyme K antibody [GM-24C3] ab3771

2 References 画像数 1

製品の概要

製品名	Anti-Granzyme K antibody [GM-24C3]
製品の詳細	Mouse monoclonal [GM-24C3] to Granzyme K
由来種	Mouse
特異性	This antibody recognises Granzyme K transiently expressed on the cell surface of transfected BOSC cells as well as the native protein in peripheral blood mononuclear cells. It does not cross react with Granzyme A. Specificity is routinely tested by flow cytometry on BOSC cells transiently transfected with a Granzyme K expression vector.
アプリケーション	**適用あり:** ELISA, Flow Cyt (Intra), Flow Cyt
種交差性	**交差種:** Recombinant fragment
免疫原	Other Immunogen Type corresponding to Human Granzyme K. Genetic immunization with cDNA encoding human Granzyme K Database link: **P49863**
ポジティブ・コントロール	Flow Cyt: Granzyme K transfected BOSC23 cells.
特記事項	Granzymes are exogenous serine proteases that are stored in the cytotoxic granules of activated T cells and NK cells. Upon target cell contact, the contents of these granules are directionally exocytosed and, with the assistance of perforin, the granzymes enter the cytosol of the target cell. To date, five human granzymes (A, B, H, K,M) have been described at the molecular genetic level. Human granzyme K (GZMK) is a 28 kD aserine protease whose gene is located on chromosome 5q11-12 close to the granzyme A-encoding gene. Like granzyme A, it has a trypsin-like specifity cleaving at the basic residues arginine and lysine. To which extent human granzyme K plays a role in the induction of apoptosis in the target cells remains to be evaluated. However, granzyme K purified from a rat large granular lymphoma cell line (RNK-16)has been shown to induce apoptosis in vitro. High mRNA levels of granzyme K are detected inactivated T cells and NK cells but are absent in normal tissues that do not contain high numbers of these cells. Antibodies produced from cDNA: Conventional technologies usually either generate antibodies against purified proteins, or against synthetic peptides based on amino acid sequences derived from DNA sequence data. Genetic immunization involves introducing the gene in the form of a cDNA directly into an animal which translates this cDNA into protein thus stimulating an immune response against the foreign protein. Although the synthetic peptide approach is comparable in speed, the quality of antibodies generated by genetic immunization is far superior. This is because the protein is made by the immunized animal, utilzing complex cellular mechanisms that allow it to gain a native conformation. Antibodies are then generated against a native protein, such as is found in the blood or tissues of its host species. Membrane-bound or secreted proteins

often create problems for conventional antibody technology because in their native form, they are often modified by glycosylation, or in some cases exist as multiple membrane-spanning proteins that are not soluble following isolation or synthesis in recombinant systems. All of these problems are avoided if the immunized animal makes the protein itself. Antibodies generated by genetic immunization have been shown to have binding affinities to the protein in the sub-nanomolar range, which are approximately 100x higher than conventionally developed antibodies and much higher than single chain antibodies. Results confirm published data for much higher avidity of sera generated by genetic immunization as compared with that gained by immunization with a corresponding recombinant protein.

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

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
バッファー	pH: 7.20 Constituent: PBS
精製度	Protein G purified
一次抗体 備考	Granzymes are exogenous serine proteases that are stored in the cytotoxic granules of activated T cells and NK cells. Upon target cell contact, the contents of these granules are directionally exocytosed and, with the assistance of perforin, the granzymes enter the cytosol of the target cell. To date, five human granzymes (A, B, H, K,M) have been described at the molecular genetic level. Human granzyme K (GZMK) is a 28 kD aserine protease whose gene is located on chromosome 5q11-12 close to the granzyme A-encoding gene. Like granzyme A, it has a trypsin-like specifity cleaving at the basic residues arginine and lysine. To which extent human granzyme K plays a role in the induction of apoptosis in the target cells remains to be evaluated. However, granzyme K purified from a rat large granular lymphoma cell line (RNK-16)has been shown to induce apoptosis in vitro. High mRNA levels of granzyme K are detected inactivated T cells and NK cells but are absent in normal tissues that do not contain high numbers of these cells. Antibodies produced from cDNA: Conventional technologies usually either generate antibodies against purified proteins, or against synthetic peptides based on amino acid sequences derived from DNA sequence data. Genetic immunization involves introducing the gene in the form of a cDNA directly into an animal which translates this cDNA into protein thus stimulating an immune response against the foreign protein. Although the synthetic peptide approach is comparable in speed, the quality of antibodies generated by genetic immunization is far superior. This is because the protein is made by the immunized animal, utilzing complex cellular mechanisms that allow it to gain a native conformation. Antibodies are then generated against a native protein, such as is found in the blood or tissues of its host species. Membrane-bound or secreted proteins often create problems for conventional antibody technology because in their native form, they are often modified by glycosylation, or in some cases exist as multiple membrane-spanning proteins that are not soluble following isolation or synthesis in recombinant systems. All of these problems are avoided if the immunized animal makes the protein itself. Antibodies generated by genetic

immunization have been shown to have binding affinities to the protein in the sub-nanomolar range, which are approximately 100x higher than conventionally developed antibodies and much higher than single chain antibodies. Results confirm published data for much higher avidity of sera generated by genetic immunization as compared with that gained by immunization with a corresponding recombinant protein.

ポリ/モノ	モノクローナル
クローン名	GM-24C3
アイソタイプ	IgG2b

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab3771の使用に適用されます

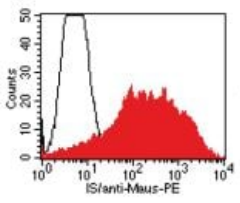
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ELISA		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab170192** - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
Flow Cyt		Use 1.2µg for 10^6 cells.

ターゲット情報

組織特異性	Expressed in lung, spleen, thymus and peripheral blood leukocytes.
配列類似性	Belongs to the peptidase S1 family. Granzyme subfamily. Contains 1 peptidase S1 domain.
細胞内局在	Secreted. Cytoplasmic granule.

画像



Flow Cytometry - Anti-Granzyme K antibody [GM-24C3] (ab3771)

Flow cytometric analysis of BOSC23 cells using ab3771. BOSC23 cells were transiently transfected with an expression vector encoding either Granzyme K (red curve) or an irrelevant protein (control transfectant: black curve). Binding of ab3771 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with Granzyme K transfected cells.

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