abcam

Product datasheet

Anti-Granulin antibody [EPR18539-59] - BSA and Azide free ab227816

Recombinant RabMAb

1 References 5 Images

Overview

Product name	Anti-Granulin antibody [EPR18539-59] - BSA and Azide free
Description	Rabbit monoclonal [EPR18539-59] to Granulin - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human tonsil tissue; ICC/IF: J774A.1 cells; Flow Cyt (intra): J774A.1 cells; IP: J774A.1 whole cell lysate
General notes	ab227816 is the carrier-free version of **ab187070**. Also recommended for human and rat species for IHC. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18539-59
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab227816 in the following tested applications.

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

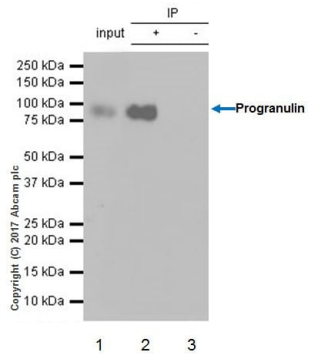
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 63 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Also recommended for human and rat species for IHC
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

Target

Function	Granulins have possible cytokine-like activity. They may play a role in inflammation, wound repair, and tissue remodeling. Granulin-4 promotes proliferation of the epithelial cell line A431 in culture while granulin-3 acts as an antagonist to granulin-4, inhibiting the growth.
Tissue specificity	In myelogenous leukemic cell lines of promonocytic, promyelocytic, and proerythroid lineage, in fibroblasts, and very strongly in epithelial cell lines. Present in inflammatory cells and bone marrow. Highest levels in kidney.
Involvement in disease	Defects in GRN are the cause of ubiquitin-positive frontotemporal dementia (UP-FTD) [MIM:607485]; also known as tau-negative frontotemporal dementia linked to chromosome 17.

	Frontotemporal dementia (FTD) is the second most common cause of dementia in people under the age of 65 years. It is an autosomal dominant neurodegenerative disease.
Sequence similarities	Belongs to the granulin family.
Post-translational modifications	Granulins are disulfide bridged.
Cellular localization	Secreted.

Images



Immunoprecipitation - Anti-Granulin antibody [EPR18539-59] - BSA and Azide free (ab227816)

Granulin was immunoprecipitated from 0.35 mg of J774A.1 (mouse reticulum cell sarcoma monocyte macrophage cell line) whole cell lysate with **ab187070** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab187070** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10,000 dilution.

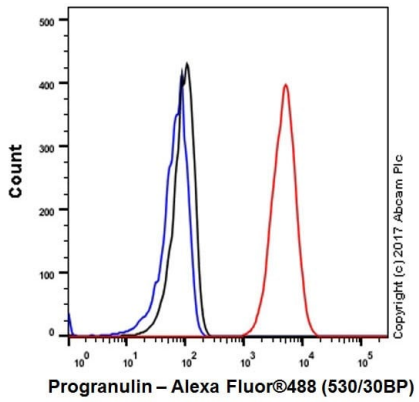
Lane 1: J774A.1 lysate 10 µg (Input).

Lane 2: **ab187070** IP in J774A.1 lysate (+).

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab187070** in J744A.1 whole cell lysate (-).

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab187070**).

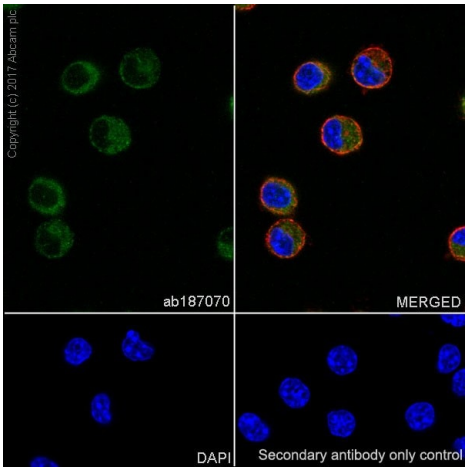


Flow Cytometry (Intracellular) - Anti-Granulin antibody [EPR18539-59] - BSA and Azide free (ab227816)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized J774A.1 (mouse reticulum cell sarcoma monocyte macrophage) cell line labeling Granulin with **ab187070** at 1/1000 (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue).

Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**), at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab187070**).



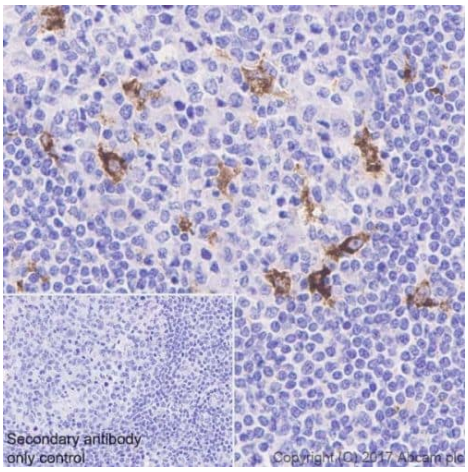
Immunocytochemistry/ Immunofluorescence - Anti-Granulin antibody [EPR18539-59] - BSA and Azide free (ab227816)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized J774A.1 (mouse reticulum cell sarcoma monocyte macrophage cell line) cells labeling Granulin with **ab187070** at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on J774A.1 cell line.

The nuclear counter statin is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (red).

Negative control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab187070**).



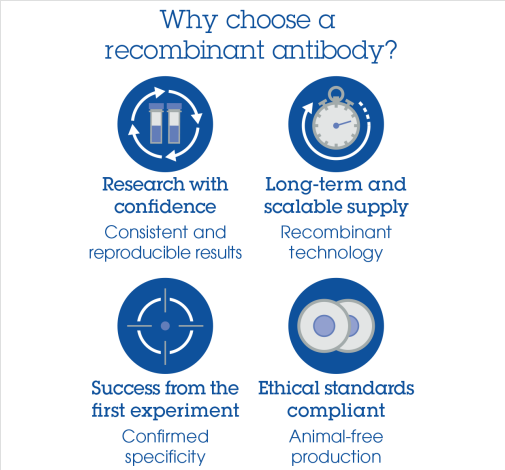
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Granulin antibody [EPR18539-59] - BSA and Azide free (ab227816)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Granulin with **ab187070** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Sporadic cytoplasmic staining on human tonsil (PMID: 23959579) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab187070**).



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