abcam

Product datasheet

Anti-GM2A antibody ab113440

2 Images

Overview

Product name	Anti-GM2A antibody
Description	Goat polyclonal to GM2A
Host species	Goat
Specificity	ab113440 is expected to recognize isoform 1 (NP_000396.2) only.
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Rat, Human **Predicted to work with:** Mouse, Rabbit
Immunogen	Synthetic peptide: C-TTGNYRIESVLS , corresponding to internal sequence amino acids 164-175 of Human GM2A (NP_000396.2). Run BLAST with Run BLAST with
Positive control	HEK293 lysate overexpressing Human GM2A with DYKDDDDK tag, Mock-transfected HEK293 lysate

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 99% Tris buffered saline, 0.5% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab113440** 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
WB		Use a concentration of 0.3 - 1 µg/ml. Detects a band of approximately 28 kDa (predicted molecular weight: 21 kDa).

Target

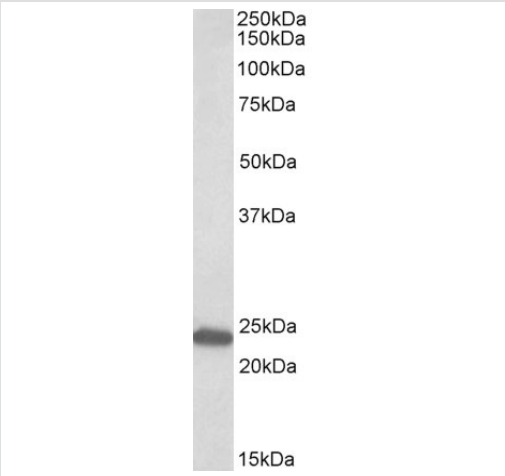
Function
Binds gangliosides and stimulates ganglioside GM2 degradation. It stimulates only the breakdown of ganglioside GM2 and glycolipid GA2 by beta-hexosaminidase A. It extracts single GM2 molecules from membranes and presents them in soluble form to beta-hexosaminidase A for cleavage of N-acetyl-D-galactosamine and conversion to GM3.

Involvement in disease
Defects in GM2A are the cause of GM2-gangliosidosis type AB (GM2GAB) [MIM:272750]; also known as Tay-Sachs disease AB variant. GM2-gangliosidosis is an autosomal recessive lysosomal storage disease marked by the accumulation of GM2 gangliosides in the neuronal cells. GM2GAB is characterized by GM2 gangliosides accumulation in the presence of both hexosaminidase A and B.

Post-translational modifications
The serines in positions 32 and 33 are absent in 80% of the sequenced protein.

Cellular localization
Lysosome.

Images

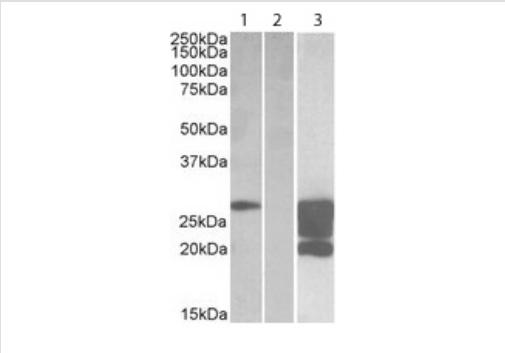


Western blot - Anti-GM2A antibody (ab113440)

Anti-GM2A antibody (ab113440) at 0.300000011920929 µg/ml + Rat kidney lysate in RIPA buffer at 35 µg

Developed using the ECL technique.

Predicted band size: 21 kDa



Western blot - Anti-GM2A antibody (ab113440)

Lane 1 : Anti-GM2A antibody (ab113440) at 1 µg/ml
Lane 2 : Anti-GM2A antibody (ab113440) at 1 mg/ml
Lane 3 : anti- DYKDDDDK Tag at 1/30000 dilution

Lanes 1 & 3 : HEK293 lysate (in RIPA buffer) overexpressing Human GM2A with DYKDDDDK tag
Lane 2 : Mock-transfected HEK293 lysate (in RIPA buffer)

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Predicted band size: 21 kDa

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