abcam

Product datasheet

Anti-GBA antibody [2E2] ab55080

KO VALIDATED

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Overview

Product name	Anti-GBA antibody [2E2]
Description	Mouse monoclonal [2E2] to GBA
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment (GST-tag) corresponding to Human GBA aa 146-236. Sequence: SYFSEEGIGYNIIRVPMASCDFSIRTYTYADTPDDFQLHNFS LPEEDTKL KIPLIHRALQLAQRPVSLLASPWTSPTWLKTNGAVNGKGS Run BLAST with Run BLAST with
General notes	This product was changed from ascites to tissue culture supernatant on 15 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 or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.4
Purity	Protein A purified

Clonality	Monoclonal
Clone number	2E2
Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab55080 in the following tested applications.

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

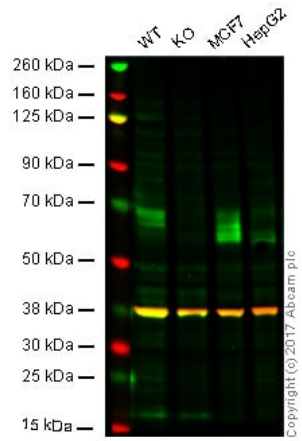
Application	Abreviews	Notes
WB	★★★★☆ (2)	Use at an assay dependent concentration. Predicted molecular weight: 60 kDa.
IHC-P		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

Target

Involvement in disease Defects in GBA are the cause of Gaucher disease (GD) [MIM:230800]; also known as glucocerebrosidase deficiency. GD is the most prevalent lysosomal storage disease, characterized by accumulation of glucosylceramide in the reticulo-endothelial system. Different clinical forms are recognized depending on the presence (neuronopathic forms) or absence of central nervous system involvement, severity and age of onset.
Defects in GBA are the cause of Gaucher disease type 1 (GD1) [MIM:230800]; also known as adult non-neuronopathic Gaucher disease. GD1 is characterized by hepatosplenomegaly with consequent anemia and thrombopenia, and bone involvement. The central nervous system is not involved.
Defects in GBA are the cause of Gaucher disease type 2 (GD2) [MIM:230900]; also known as acute neuronopathic Gaucher disease. GD2 is the most severe form and is universally progressive and fatal. It manifests soon after birth, with death generally occurring before patients reach two years of age.
Defects in GBA are the cause of Gaucher disease type 3 (GD3) [MIM:231000]; also known as subacute neuronopathic Gaucher disease. GD3 has central nervous manifestations.
Defects in GBA are the cause of Gaucher disease type 3C (GD3C) [MIM:231005]; also known as pseudo-Gaucher disease or Gaucher-like disease.
Defects in GBA are the cause of Gaucher disease perinatal lethal (GDPL) [MIM:608013]. It is a distinct form of Gaucher disease type 2, characterized by fetal onset. Hydrops fetalis, in utero fetal death and neonatal distress are prominent features. When hydrops is absent, neurologic involvement begins in the first week and leads to death within 3 months. Hepatosplenomegaly is a major sign, and is associated with ichthyosis, arthrogryposis, and facial dysmorphism.
Note=Perinatal lethal Gaucher disease is associated with non-immune hydrops fetalis, a generalized edema of the fetus with fluid accumulation in the body cavities due to non-immune causes. Non-immune hydrops fetalis is not a diagnosis in itself but a symptom, a feature of many genetic disorders, and the end-stage of a wide variety of disorders.
Defects in GBA contribute to susceptibility to Parkinson disease (PARK) [MIM:168600]. A

	complex neurodegenerative disorder characterized by bradykinesia, resting tremor, muscular rigidity and postural instability. Additional features are characteristic postural abnormalities, dysautonomia, dystonic cramps, and dementia. The pathology of Parkinson disease involves the loss of dopaminergic neurons in the substantia nigra and the presence of Lewy bodies (intraneuronal accumulations of aggregated proteins), in surviving neurons in various areas of the brain. The disease is progressive and usually manifests after the age of 50 years, although early-onset cases (before 50 years) are known. The majority of the cases are sporadic suggesting a multifactorial etiology based on environmental and genetic factors. However, some patients present with a positive family history for the disease. Familial forms of the disease usually begin at earlier ages and are associated with atypical clinical features.
Sequence similarities	Belongs to the glycosyl hydrolase 30 family.
Cellular localization	Lysosome membrane. Interaction with saposin-C promotes membrane association.

Images



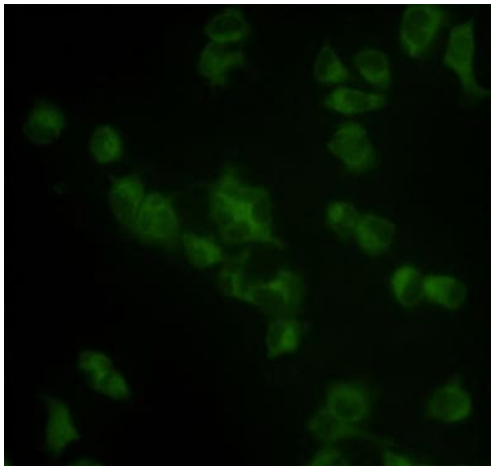
Western blot - Anti-GBA antibody [2E2] (ab55080)

Lane 1: Wild-type HAP1 whole cell lysate (40 µg)
Lane 2: GBA knockout HAP1 whole cell lysate (40 µg)
Lane 3: MCF7 whole cell lysate (40 µg)
Lane 4: HepG2 whole cell lysate (40 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab55080 observed at 70 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab55080 was shown to specifically react with GBA in wild-type HAP1 cells along with additional cross-reactive bands. No bands were observed when GBA knockout samples were used. Wild-type and GBA knockout samples were subjected to SDS-PAGE. Ab55080 and **ab181602** (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1 ug/ml and 1/10,000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (**ab216772**) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (**ab216777**) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.

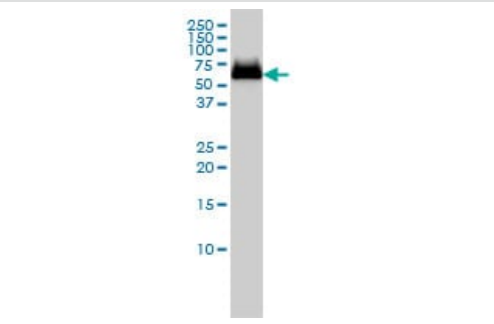
This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-GBA antibody [2E2] (ab55080)

ab55080 at 10 ug/ml staining GBA in human Hela cells by Immunocytochemistry/ Immunofluorescence.

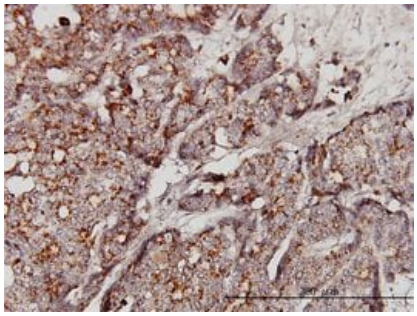
This image was generated using the ascites version of the product.



Western blot - Anti-GBA antibody [2E2] (ab55080)

GBA antibody (ab55080) at 1ug/lane + MCF-7 cell lysate at 25ug/lane.

This image was generated using the ascites version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GBA antibody [2E2] (ab55080)

GBA antibody (ab55080) used in immunohistochemistry at 3ug/ml on formalin fixed and paraffin embedded human breast cancer.

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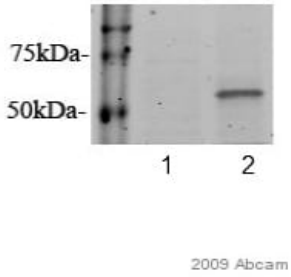

Western blot - Anti-GBA antibody [2E2] (ab55080)

This image is a courtesy of Anonymous Abreview

All lanes : Anti-GBA antibody [2E2] (ab55080) at 1/1000 dilution

Lane 1 : Lysate prepared from MOCK
Lane 2 : Lysate prepared from human HN10 cells

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : IRDye® donkey polyclonal to mouse IgG at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 60 kDa
Observed band size: 60 kDa

Exposure time: 1 minute

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