abcam

Product datasheet

# Anti-GBA antibody [EPR5142] - BSA and Azide free ab215261

KO 評価済 リコンビナント RabMAb

画像数 8

## 製品の概要

| | |
|---|---|
| **製品名** | Anti-GBA antibody [EPR5142] - BSA and Azide free |
| **製品の詳細** | Rabbit monoclonal [EPR5142] to GBA - BSA and Azide free |
| **由来種** | Rabbit |
| **アプリケーション** | **適用あり:** IHC-Fr, IHC-P, WB<br>**適用なし:** Flow Cyt,ICC/IF or IP |
| **種交差性** | **交差種:** Human |
| **免疫原** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **ポジティブ・コントロール** | IHC-P: Human lung cancer and colon tissue; WB: HeLa, HAP1, MCF7 and HepG2 cell lysates. IHC-Fr: Frozen human hippocampus and placenta tissue sections. |
| **特記事項** | ab215261 is the carrier-free version of **ab125065**.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br><br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. |

## 製品の特性

| | |
|---|---|
| **製品の状態** | Liquid |
| **保存方法** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **バッファー** | pH: 7.2<br>Constituent: PBS |
| **キャリア・フリー** | はい |
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |
| **クローン名** | EPR5142 |
| **アイソタイプ** | IgG |

## 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ab215261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 |
|---|---|---|
| **IHC-Fr** | | Use at an assay dependent concentration. |
| **IHC-P** | | Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| **WB** | | Use at an assay dependent concentration. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa). |

**追加情報** Is unsuitable for Flow Cyt,ICC/IF or IP.

## ターゲット情報

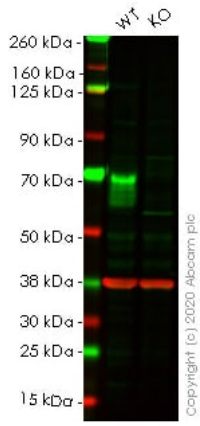
**関連疾患** Defects in GBA are the cause of Gaucher disease (GD) [MIM:230800]; also known as glucocerebrosidase deficiency. GD is the most prevalent lysosomal storage disease, characterized by accumulation of glucosylceramide in the reticulo-endothelial system. Different clinical forms are recognized depending 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.

**配列類似性** Belongs to the glycosyl hydrolase 30 family.

**細胞内局在** Lysosome membrane. Interaction with saposin-C promotes membrane association.

## 画像




Western blot - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

**All lanes :** Anti-GBA antibody [EPR5142] (**ab125065**) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate
**Lane 2 :** GBA knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

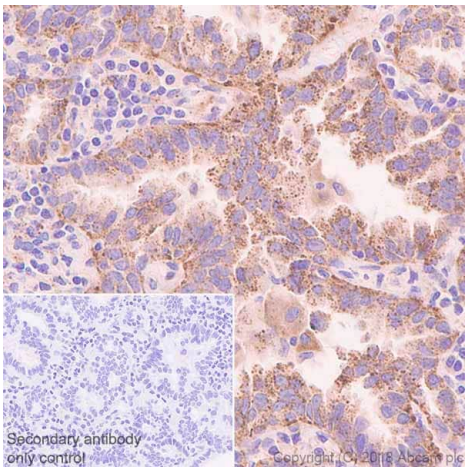
Performed under reducing conditions.

**Predicted band size:** 60 kDa
**Observed band size:** 70 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab125065**).

**Lanes 1- 2:** Merged signal (red and green). Green - **ab125065** observed at 70 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

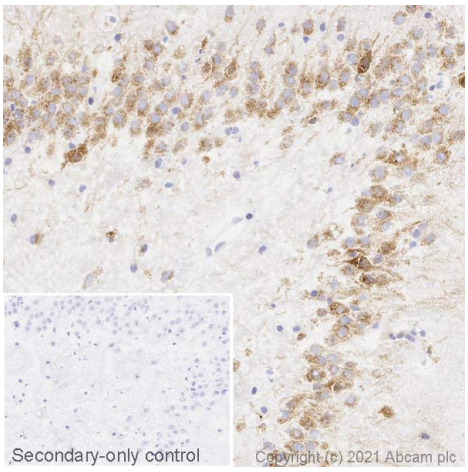
**ab125065** was shown to react with GBA in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab265038** (knockout cell lysate **ab256929**) was used. Wild-type HeLa and GBA knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab125065** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung cancer tissue sections labeling GBA with Purified **ab125065** at 1:50 dilution (2.1 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125065**).



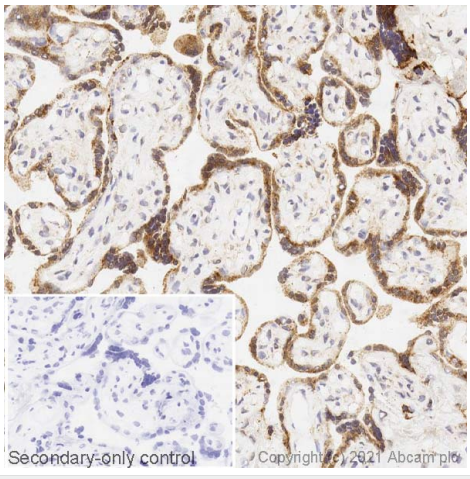

Immunohistochemistry (Frozen sections) - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

IHC image of GBA staining in a section of frozen normal human hippocampus* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with **ab125065**, 5ugml, 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. The inset secondary-only control image is taken from an identical assay without primary antibody.

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.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125065**).



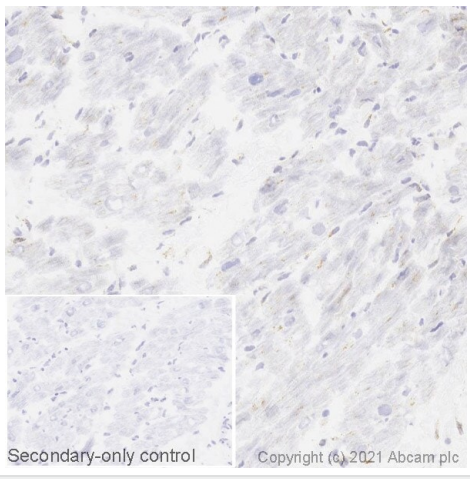

Immunohistochemistry (Frozen sections) - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

IHC image of GBA staining in a section of frozen normal human placenta* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with **ab125065**, 5ugml, 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. The inset secondary-only control image is taken from an identical assay without primary antibody.

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.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125065**).



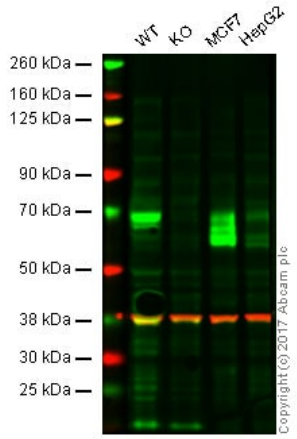

Immunohistochemistry (Frozen sections) - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

**Negative control image**: IHC image of GBA staining in a section of frozen normal human heart* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with **ab125065**, 5ugml, 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. The inset secondary-only control image is taken from an identical assay without primary antibody.

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.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125065**).




Western blot - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

**All lanes :** Anti-GBA antibody [EPR5142] (**ab125065**) at 1/1000 dilution

**Lane 1 :** Wild-type HAP1 whole cell lysate
**Lane 2 :** GBA knockout HAP1 whole cell lysate
**Lane 3 :** MCF7 whole cell lysate
**Lane 4 :** HepG2 whole cell lysate

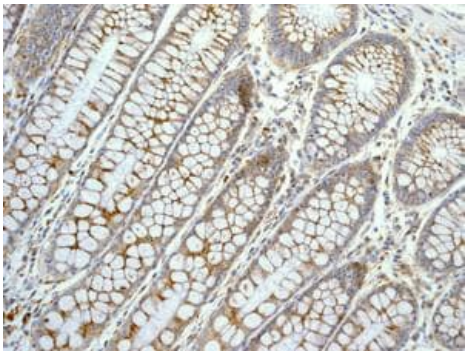
Lysates/proteins at 40 µg per lane.

**Predicted band size:** 60 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - **ab125065** observed at 70 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

**ab125065** was shown to specifically recognize GBA in wild-type HAP1 cells as well as 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. Ab125065 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.

This data was developed using the same antibody clone in a different buffer formulation containing tissue culture supernatant, tris glycine, BSA, glycerol and sodium azide (**ab125065**).



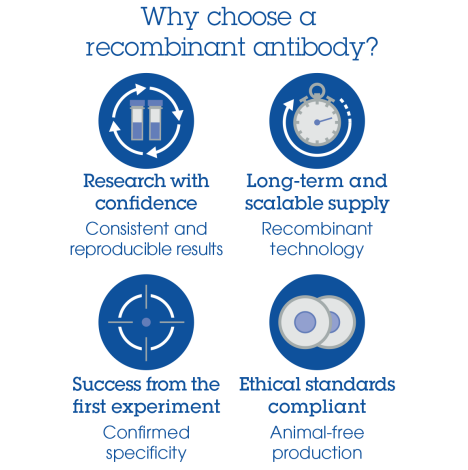
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)

**ab125065**, at a 1/50 dilution, staining GBA in paraffin-embedded Human colon tissue by immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125065**).

**This image was generated using the unpurified version of the product.**

**Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.**




Anti-GBA antibody [EPR5142] - BSA and Azide free (ab215261)



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