abcam

ab249385

Anti-beta glucuronidase (GUSB) antibody [EPR10616] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR10616
Purification technique	Affinity purification
Concentration	1.061 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information GUSB

Function	Plays an important role in the degradation of dermatan and keratan sulfates.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab249385 is the carrier-free version of ab166904.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Beta glucuronidase also known as GUSB is an enzyme with several well-known names including b glucuronidase b-glucuronidase and beta-glucuronidase. It is a hydrolase enzyme with a molecular mass around 75 kDa. The enzyme is widely expressed in lysosomes of various tissues such as liver spleen and kidney. Mechanically beta-glucuronidase cleaves beta-D-glucuronic acid residues from glycosaminoglycans steroids and hormones an essential step for the degradation of glycosaminoglycans.
Biological function summary	Beta glucuronidase performs significant roles in cellular metabolism and molecule recycling. This enzyme aids in the breakdown and recycling of complex carbohydrates. By facilitating hydrolysis it helps in maintaining cellular homeostasis. Beta glucuronidase is not part of a complex; it functions independently within lysosomes. Its activity is vital for recycling endocytosed material and managing cellular turnover.
Pathways	Beta glucuronidase plays an important role in the lysosomal degradation pathway. This enzyme aids in glycosaminoglycan catabolism a process important for cellular waste disposal and recycling. Its activity connects with several proteins in the pathway notably those involved in lysosomal function such as Hexosaminidase. Beta glucuronidase's enzymatic function further integrates into the broader context of carbohydrate metabolism pathways enabling efficient breakdown of large carbohydrate molecules.
Associated diseases and disorders	Mutations or deficiencies in beta glucuronidase lead to mucopolysaccharidosis type VII also called Sly syndrome. This lysosomal storage disorder results in the accumulation of undegraded glycosaminoglycans causing developmental delay skeletal abnormalities and other systemic issues. Additionally beta glucuronidase contributes to cancer biology where altered expressions can influence tumor progression. Proteins like glucocerebrosidase may interact indirectly impacting the disease's pathophysiology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

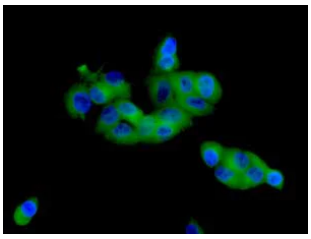
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

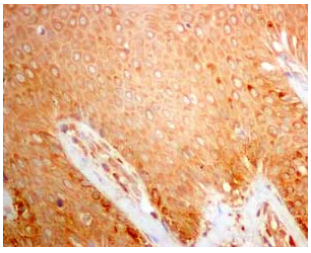
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-beta glucuronidase (GUSB) antibody [EPR10616] - BSA and Azide free (ab249385)

Beta glucuronidase (GUSB) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-beta glucuronidase (GUSB) antibody

This data was developed using ab166904, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of HepG2 cells labeling beta glucuronidase (GUSB) with ab166904 at 1/100 dilution.

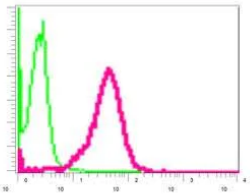


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta glucuronidase (GUSB) antibody [EPR10616] - BSA and Azide free (ab249385)

Beta glucuronidase (GUSB) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-beta glucuronidase (GUSB) antibody

This data was developed using ab166904, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human skin tissue labeling beta glucuronidase (GUSB) with ab166904 at 1/50 dilution.

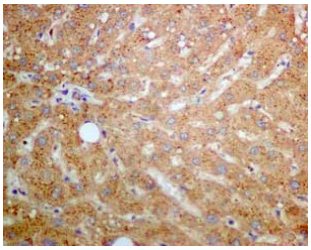
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-beta glucuronidase (GUSB) antibody [EPR10616] - BSA and Azide free (ab249385)

Beta glucuronidase (GUSB) Flow Cytometry (Intracellular) staining using rabbit Anti-beta glucuronidase (GUSB) antibody

This data was developed using ab166904, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized K562 cells labeling beta glucuronidase (GUSB) with ab166904 at 1/100 dilution (red) or a rabbit IgG negative (green).

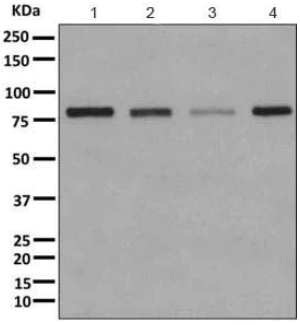


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta glucuronidase (GUSB) antibody [EPR10616] - BSA and Azide free (ab249385)

Beta glucuronidase (GUSB) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-beta glucuronidase (GUSB) antibody

This data was developed using ab166904, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling beta glucuronidase (GUSB) with ab166904 at 1/50 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-beta glucuronidase (GUSB) antibody [EPR10616] - BSA and Azide free (ab249385)

Beta glucuronidase (GUSB) Western blot staining using rabbit Anti-beta glucuronidase (GUSB) antibody

This data was developed using ab166904, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-beta glucuronidase (GUSB) antibody [EPR10616] (ab166904) at 1/1000 dilution

Lane 1:
Human fetal liver tissue lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Lane 3:
HepG2 cell lysate at 10 µg

Lane 4:
293T cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP IgG antibody at 1/2000 dilution

Predicted band size: 75 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.