

Product datasheet

Anti-GGT1/GGT antibody [EPR5288] α b109427

Recombinant RabMAb

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Overview

Product name	Anti-GGT1/GGT antibody [EPR5288]
Description	Rabbit monoclonal [EPR5288] to GGT1/GGT
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal liver and human fetal kidney tissue lysates and HepG2 and A549 cell lysates. IHC-P: Human kidney and stomach tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR5288
Isotype	IgG

Applications

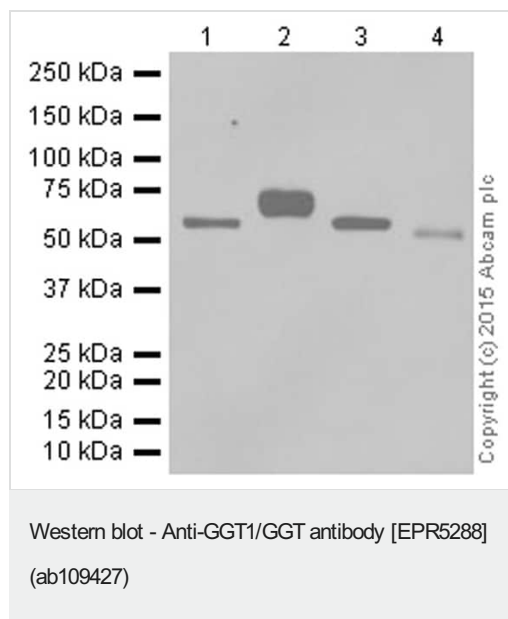
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109427 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 61 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .

Target

Function	Initiates extracellular glutathione (GSH) breakdown, provides cells with a local cysteine supply and contributes to maintain intracellular GSH level. It is part of the cell antioxidant defense mechanism. Catalyzes the transfer of the glutamyl moiety of glutathione to amino acids and dipeptide acceptors. Alternatively, glutathione can be hydrolyzed to give Cys-Gly and gamma glutamate. Isoform 3 seems to be inactive.
Tissue specificity	Detected in fetal and adult kidney and liver, adult pancreas, stomach, intestine, placenta and lung. Isoform 3 is lung-specific. There are several other tissue-specific forms that arise from alternative promoter usage but that produce the same protein.
Pathway	Sulfur metabolism; glutathione metabolism.
Involvement in disease	Defects in GGT1 are a cause of glutathionuria (GLUTH) [MIM:231950]; also known as gamma-glutamyltranspeptidase deficiency. It is an autosomal recessive disease.
Sequence similarities	Belongs to the gamma-glutamyltransferase family.
Post-translational modifications	N-glycosylated on both chains. Contains hexoses, hexosamines and sialic acid residues. Glycosylation profiles tested in kidney and liver tissues reveal the presence of tissue-specific and site-specific glycan composition, despite the overlap in composition among the N-glycans. A total of 36 glycan compositions, with 40 unique structures are observed. Up to 15 different glycans are observed at a single site, with site-specific variation in glycan composition. The difference in glycosylation profiles in the 2 tissues do not affect the enzyme activity.
Cellular localization	Membrane.

Images



All lanes : Anti-GGT1/GGT antibody [EPR5288] (ab109427) at 1/1000 dilution (purified)

Lane 1 : Human fetal liver tissue lysate

Lane 2 : HepG2 whole cell lysate

Lane 3 : Human fetal kidney tissue lysate

Lane 4 : A549 whole cell lysate

Lysates/proteins at 20 µg per lane.

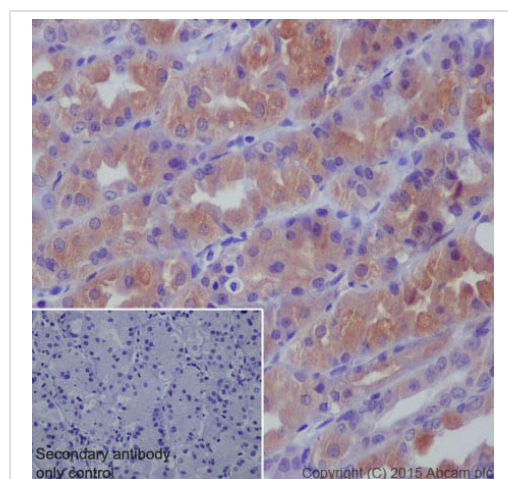
Secondary

All lanes : HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 61 kDa

Observed band size: 50-60 kDa

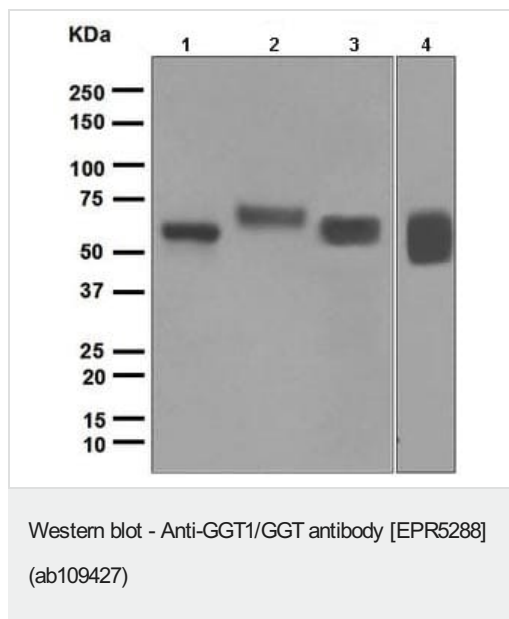
Blocking and dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human stomach tissue labelling GGT1/GGT with purified ab109427 at a dilution of 1/100. Heat mediated antigen retrieval was performed using EDTA buffer pH 9.

ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GGT1/GGT antibody [EPR5288] (ab109427)



All lanes : Anti-GGT1/GGT antibody [EPR5288] (ab109427) at 1/1000 dilution (unpurified)

Lane 1 : Human fetal liver lysate

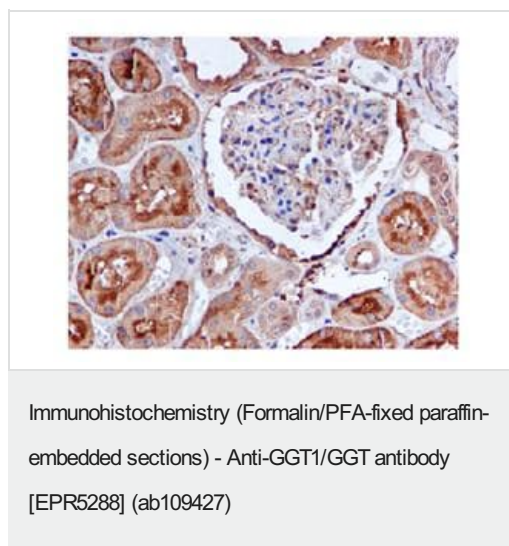
Lane 2 : HepG2 cell lysate

Lane 3 : Human fetal kidney lysate

Lane 4 : A549 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 61 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling GGT1/GGT with unpurified ab109427 at a dilution of 1/100.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-GGT1/GGT antibody [EPR5288] (ab109427)

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