

Product datasheet

Anti-Glutathione Synthetase antibody [EPR6562] ab124811

KO VALIDATED Recombinant RabMAb

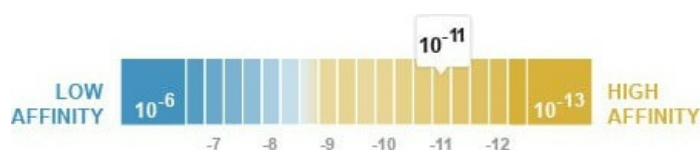
★★★★☆ 6 Abreviews 6 References 5 Images

Overview

Product name	Anti-Glutathione Synthetase antibody [EPR6562]
Description	Rabbit monoclonal [EPR6562] to Glutathione Synthetase
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Glutathione Synthetase. The exact sequence is proprietary.
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>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K _D)	K _D = 5.70 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.05% Sodium azide</p> <p>Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture</p>
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	supernatant
Purity	Protein A purified
Purification notes	ab124811 is not purified, it is provided in storage buffer.
Clonality	Monoclonal
Clone number	EPR6562
Isotype	IgG

Applications

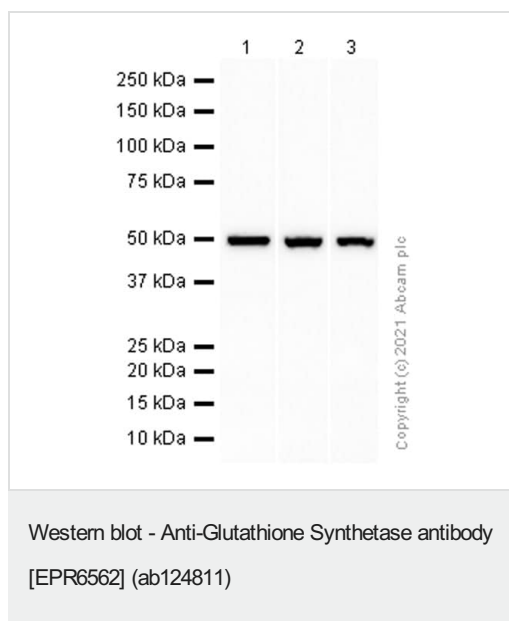
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124811 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (3)	1/10000 - 1/50000. Detects a band of approximately 52 kDa (predicted molecular weight: 52 kDa).
IHC-P	★★★★★ (1)	1/8000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. (Heat to 98°C, allow to cool for 10-20 minutes) For unpurified use at dilution between 1/50 and 1/100

Target

Pathway	Sulfur metabolism; glutathione biosynthesis; glutathione from L-cysteine and L-glutamate: step 2/2.
Involvement in disease	<p>Defects in GSS are the cause of glutathione synthetase deficiency (GSS deficiency) [MIM:266130]; also known as 5-oxoprolinuria or pyroglutamic aciduria. It is a severe form characterized by an increased rate of hemolysis and defective function of the central nervous system.</p> <p>Defects in GSS are the cause of glutathione synthetase deficiency of erythrocytes (GLUSYNDE) [MIM:231900]. Glutathione synthetase deficiency of erythrocytes is a mild form causing hemolytic anemia.</p>
Sequence similarities	Belongs to the eukaryotic GSH synthase family.

Images



All lanes : Anti-Glutathione Synthetase antibody [EPR6562] (ab124811) at 1/10000 dilution (Purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

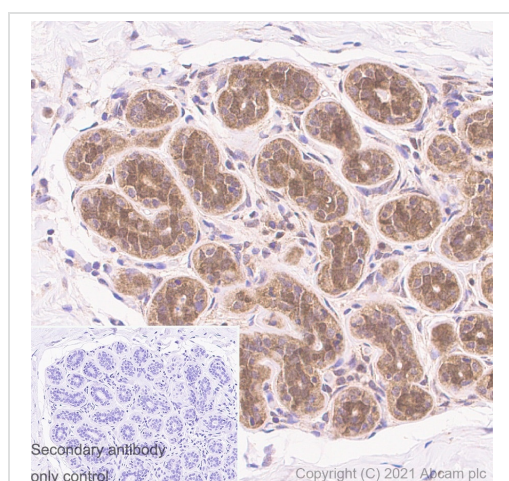
Lane 2 : 293T (Human embryonic kidney epithelial cell) whole cell lysate

Lane 3 : HT-1080 (Human fibrosarcoma epithelial cell) whole cell lysate

Secondary

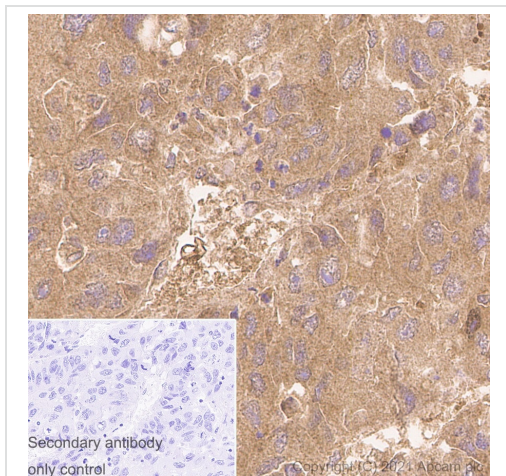
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 52 kDa



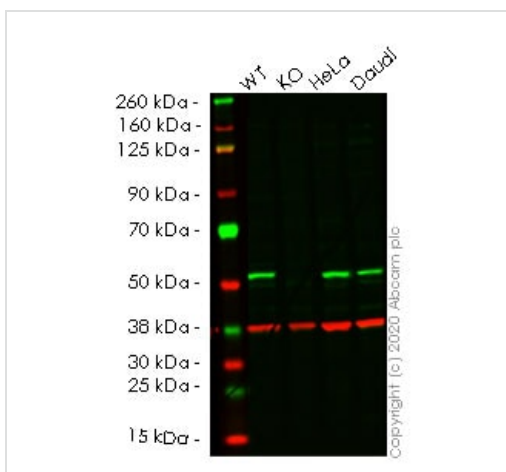
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutathione Synthetase antibody [EPR6562] (ab124811)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast tissue sections labeling Glutathione Synthetase with Purified ab124811 at 1:8000 (0.11 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutathione Synthetase antibody [EPR6562] (ab124811)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue sections labeling Glutathione Synthetase with Purified ab124811 at 1:8000 (0.11 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-Glutathione Synthetase antibody [EPR6562] (ab124811)

All lanes : Anti-Glutathione Synthetase antibody [EPR6562] (ab124811) at 1/10000 dilution

Lane 1 : Wild-type HEK-293T cell lysate

Lane 2 : GSS knockout HEK-293T cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : Daudi cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 52 kDa

Observed band size: 52 kDa

Lanes 1- 4: Merged signal (red and green). Green - ab124811 observed at 52 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab124811 was shown to react with GSS in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line **ab266342** (knockout cell lysate **ab257460**) was used. Wild-type HEK-293T and GSS knockout HEK-293T 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. ab124811 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 10000 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.

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-Glutathione Synthetase antibody [EPR6562] (ab124811)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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