

## Glutathione Synthetase Rabbit mAb

Catalog No: #49843

Package Size: #49843-1 50ul #49843-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

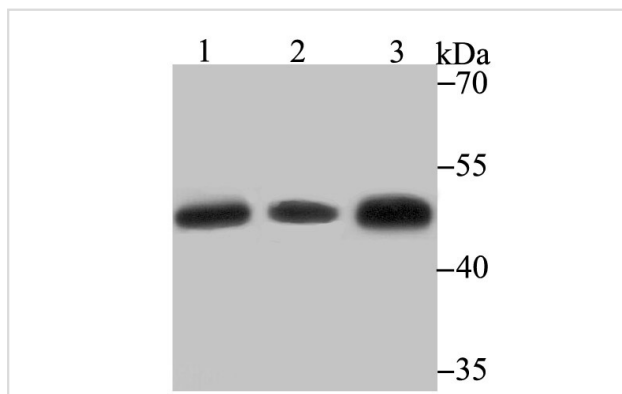
## Description

Product Name	Glutathione Synthetase Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JB95-33
Purification	ProA affinity purified
Applications	WB,ICC,IF,IHC,FC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Recombinant protein
Other Names	epididymis secretory sperm binding protein Li 64p antibody epididymis secretory sperm binding protein Li 88n antibody Glutathione synthase antibody Glutathione synthetase antibody GSH S antibody GSH synthetase antibody GSH-S antibody GSHB_HUMAN antibody GSHS antibody GSS antibody HEL-S-64p antibody HEL-S-88n antibody MGC14098 antibody OTTHUMP00000030711 antibody
Accession No.	Swiss-Prot#:P48637
Uniprot	P48637
GeneID	2937;
Calculated MW	52 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

## Application Details

WB: 1:500-1:1,000 IHC: 1:50-1:200 ICC: 1:50-1:200FC: 1:50-1:100

## Images



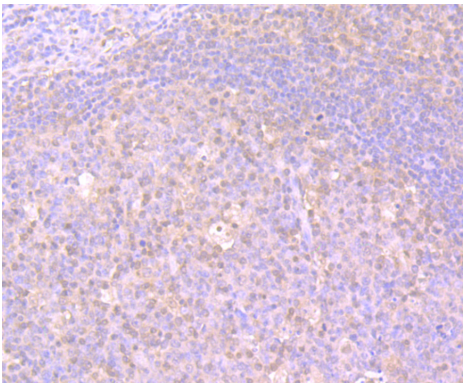
Western blot analysis of Glutathione Synthetase on different lysates using anti-Glutathione Synthetase antibody at 1/500 dilution.

Positive control:

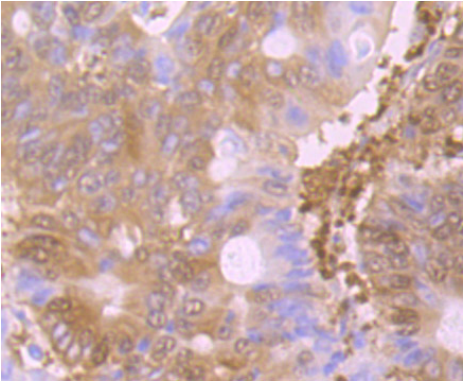
Lane 1: SiHa

Lane 2: Mouse colon

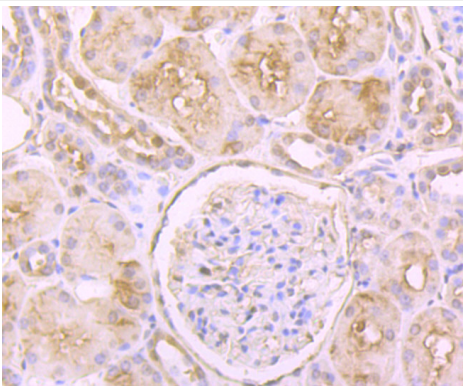
Lane 3: Rat liver



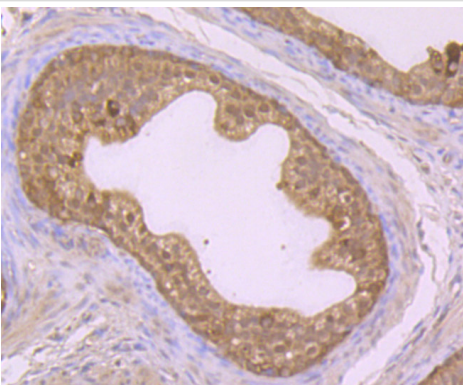
Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Glutathione Synthetase antibody. Counter stained with hematoxylin.



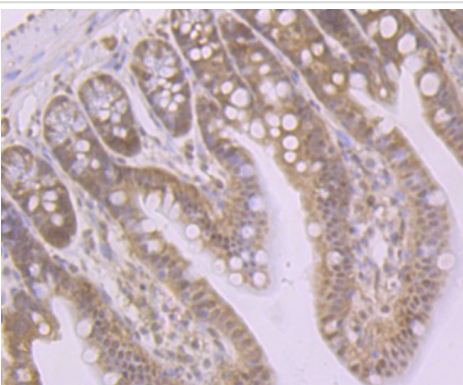
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-Glutathione Synthetase antibody. Counter stained with hematoxylin.



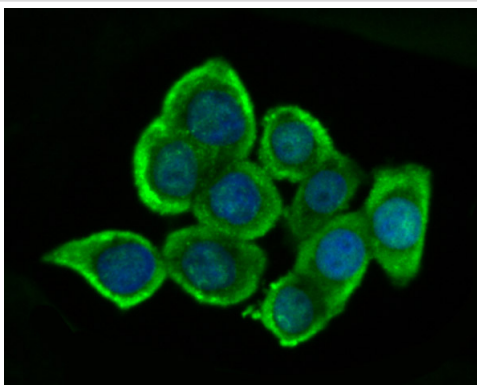
Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Glutathione Synthetase antibody. Counter stained with hematoxylin.



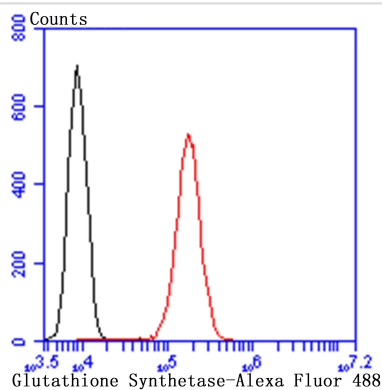
Immunohistochemical analysis of paraffin-embedded rat epididymis tissue using anti-Glutathione Synthetase antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-Glutathione Synthetase antibody. Counter stained with hematoxylin.



ICC staining Glutathione Synthetase in LOVO cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of HepG2 cells with Glutathione Synthetase antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

## Background

GSS (Glutathione synthetase) is a 474 amino acid protein encoded by the gene located at human chromosome 20q11.2. GSS consists of three loops projecting from an antiparallel  $\beta$ -sheet, a parallel  $\beta$ -sheet and a lid of anti-parallel sheets, which provide access to the ATP-binding site. Although Southern blot and gene analysis suggest that GSS may be the only member of a unique family, the crystal structure indicates that GSS belongs to the ATP-GRASP superfamily. GSS is expressed in hemocytes and nucleated cells, including the brain. GSS occurs as a homodimer. There are two steps in the production of Glutathione, beginning with  $\gamma$ -GCS and ending with GSS. In an ATP-dependent reaction, GSS produces Glutathione from  $\gamma$ -glutamylcysteine and glycine precursors. Partial hepatectomy, diethyl maleate, buthionine sulfoximine, tert-butylhydroquinone and thioacetamide increase the ex-pression of GSS, which causes an increase in Glutathione levels. An inherited autosomal recessive disorder, 5-oxoprolinuria (pyroglutamic aciduria), is caused by GSS deficiencies, which leads to central nervous system damage, hemolytic anemia, metabolic acidosis and urinary excretion of 5-oxoproline.

## References

Note: This product is for in vitro research use only