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GSS Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5216

Product Information

Application	IF, IHC-P, WB
Primary Accession	P48637
Other Accession	P46413, P51855, Q8HXX5, Q5EAC2
Reactivity	Human
Predicted	Mouse, Rat, Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52385
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	2937
Antigen Region	372-400
Other Names	GSS; Glutathione synthetase; Glutathione synthase
Dilution	IF~~1:25 IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	This GSS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 372-400 amino acids from the C-terminal region of human GSS.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GSS Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GSS (HGNC:4624)
Function	Catalyzes the production of glutathione from gamma- glutamylcysteine and glycine in an ATP-dependent manner (PubMed:7646467, PubMed:9215686).

Glutathione (gamma- glutamylcysteinylglycine, GSH) is the most abundant intracellular thiol in living aerobic cells and is required for numerous processes including the protection of cells against oxidative damage, amino acid transport, the detoxification of foreign compounds, the maintenance of protein sulfhydryl groups in a reduced state and acts as a cofactor for a number of enzymes (PubMed:10369661). Participates in ophthalmate biosynthesis in hepatocytes (By similarity).

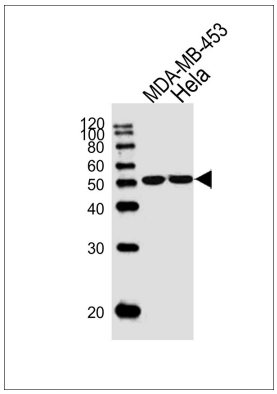
Background

Glutathione is important for a variety of biological functions, including protection of cells from oxidative damage by free radicals, detoxification of xenobiotics, and membrane transport. GSS functions as a homodimer to catalyze the second step of glutathione biosynthesis, which is the ATP-dependent conversion of gamma-L-glutamyl-L-cysteine to glutathione.

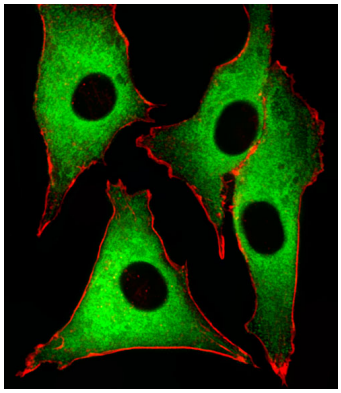
References

Starr,J.M., et.al., Mech. Ageing Dev. 129 (12), 745-751 (2008)

Images

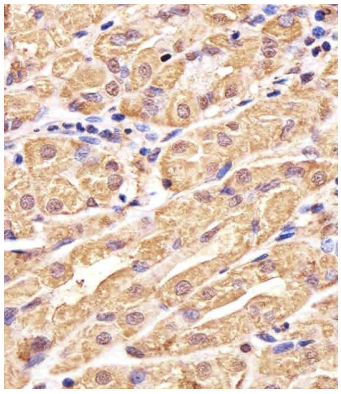


Western blot analysis of lysates from MDA-MB-453,Hela cell line (from left to right), using GSS Antibody (C-term)(Cat. #AW5216). AW5216 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Fluorescent image of U-87 MG cells stained with GSS Antibody (C-term)(Cat#AW5216). AW5216 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

Immunohistochemical analysis of paraffin-embedded H. stomach section using GSS Antibody (C-term)(Cat#AW5216). AW5216 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



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