

Sheep antibody to glutathione peroxidase 1 (GPx-1; 175-194): whole serum

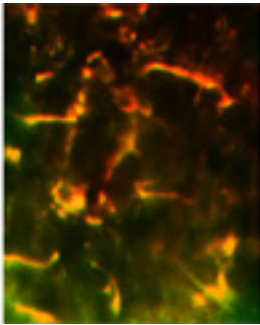
Catalogue No.:	S-072-100
Description:	Glutathione peroxidase 1 has a role in detoxification of hydrogen peroxide and is one of the most important antioxidant enzymes in humans. It exists as a homotetramer which localises to the cytoplasm. It belongs to the glutathione peroxidase family. Glutathione peroxidase 1 is one of few proteins in higher vertebrates to contain selenocysteine, which occurs at the active site of glutathione peroxidase and is coded by UGA, that normally functions as a translation termination codon. This protein has a polyalanine sequence polymorphism in the N-terminal region, which includes three alleles with five, six or seven alanine repeats. The allele with five alanine repeats is significantly associated with breast cancer risk. Two alternatively spliced isoforms have been identified.
Batch No.:	See product label
Unit size:	100 uL
Antigen:	A synthetic peptide (RRYSRRFQTIDIEPDIEALL) corresponding to the amino acids 175-194 of human glutathione peroxidase 1 (GPx-1) conjugated to diphtheria toxin has been used as the immunogen.
Other Names:	GSHPx-1; GPx-1; Cellular glutathione peroxidase; GPX1
Accession:	GPX1_HUMAN
Produced in:	Sheep
Purity:	Whole serum
Applications:	IHC, WB. This antibody works superbly in Immunohistochemistry on frozen or paraffin embedded tissues. Antigen retrieval has been used in testing but may not be necessary. Typical working dilutions for routine immunohistochemistry are 1: 2000 to 1: 20000 depending on tissue and detection method. For western blotting a dilution range of 1: 10000 to 1: 100000 is recommended. For ELISA, a dilution of 1: 2000 to 1: 20000 is recommended. This antiserum has extremely high titre, it stains human and rat brain microglia intensely and to some extent also stains neurons. Other tissues have not yet been tested. On Western blotting under reducing conditions recognises a 22kD protein in human brain tissue and Sigma glutathione peroxidase (G-4013) isolated from human erythrocytes. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	This antibody has been shown to be specific for glutathione peroxidase 1 (GPx-1) protein.
Cross-reactivity:	Human and rat, other species have not yet been tested.
Form:	Lyophilised
Reconstitution:	Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
Storage:	After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Avoid repetitive freeze/thaw cycles. Glycerol (1:1) may be added for an additional stability.
Expiry Date:	12 months after purchase

FOR RESEARCH USE ONLY

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References:

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7. Kote-Jarai Z, et al. Prostate Cancer Prostatic Dis. 5:189-192(2002).
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Immunofluorescence histochemistry with sheep antibody to glutathione peroxidase 1 (S-072-100). Staining obtained within microglia in the septal region of rat brain and is doubled labeled to show the presence of GFP protein in these same cells following a transfection experiment. Concentration of antibody used was 1:500.

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