10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Glutathione Peroxidase 1 Antibody (Clone 2A10)

Mouse Monoclonal Antibody

Catalog # ABV11176

Specification

Glutathione Peroxidase 1 Antibody (Clone 2A10) - Product Information

Application	**IP**
Primary Accession	P07203
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**

Glutathione Peroxidase 1 Antibody (Clone 2A10) - Additional Information

Gene ID 2876

Positive Control	**WB and IP: HL60 cell lysate**
Application & Usage	**IP**

Other Names
GPX1

Target/Specificity
Glutathione Peroxidase 1

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µl of antibody in HEPES with 0.15 M NaCl, 0.01 % BSA, 0.03 % sodium azide, and 50 % glycerol

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Glutathione Peroxidase 1 Antibody (Clone 2A10) is for research use only and not for use in diagnostic or therapeutic procedures.

Glutathione Peroxidase 1 Antibody (Clone 2A10) - Protein Information

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Name GPX1 (HGNC:4553)

Function
Catalyzes the reduction of hydroperoxides in a glutathione- dependent manner thus regulating cellular redox homeostasis (PubMed:11115402, PubMed:36608588). Can reduce small soluble hydroperoxides such as H2O2, cumene hydroperoxide and tert-butyl hydroperoxide, as well as several fatty acid-derived hydroperoxides (PubMed:11115402, PubMed:36608588). In platelets catalyzes the reduction of 12-hydroperoxyeicosatetraenoic acid, the primary product of the arachidonate 12-lipoxygenase pathway (PubMed:11115402).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P11352}. Mitochondrion {ECO:0000250|UniProtKB:P11352}

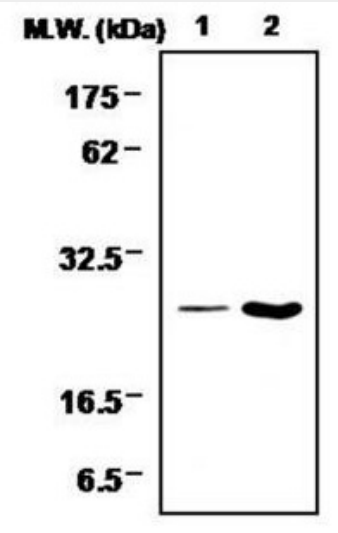
Tissue Location
Expressed in platelets (at protein level).

Glutathione Peroxidase 1 Antibody (Clone 2A10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Glutathione Peroxidase 1 Antibody (Clone 2A10) - Images



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IP analysis of HL60 cell lysates. Lane 1: Input, Lane 2: Precipitated sample

Glutathione Peroxidase 1 Antibody (Clone 2A10) - Background

Glutathione peroxidases (Gpxs) are ubiquitously expressed proteins which catalyze the reduction of hydrogen peroxides and organic hydroperoxides by glutathione. There are several isoforms which differ in their primary structure and localization. The classical cytosolic /mitochondrial GPx1 (cGPx) is a selenium-dependent enzyme, first of the GPx family to be discovered. GPx2, also known as gastrointestinal GPx (GI-GPx), is an intracellular enzyme expressed only at the epithelium of the gastrointestinal tract. Extracellular plasma GPx (pGPx or GPx3) is mainly expressed by the kidney from where it is released into the blood circulation. Phospholipid hydroperoxide GPx4 (PH-GPx) expressed in most tissues, can reduce many hydroperoxides including hydroperoxides integrated in membranes, hydroperoxy lipids in low density lipoprotein or thymine. All mammalian GPx family members, except for the recently described Cys containing GPx3 and epididymis-specific secretory GPx (eGPx or GPx5) isoforms, possess selenocysteine at the active site.