abcam

ab203154

Alexa Fluor® 647 Anti-GST3 / GST pi antibody [EPR8263]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR8263
Purification technique	Affinity purification Protein A
Dissociation constant	1 x 10^{-10} M
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	This product gave a positive signal in K562 cells fixed with 100% methanol (5 min).

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information GSTP1

Function Catalyzes conjugation of reduced glutathione to a wide number of exogenous and endogenous hydrophobic electrophiles (PubMed:1540159, PubMed:1567427, PubMed:8433974). Involved in the formation of glutathione conjugates of both prostaglandin A2 (PGA2) and prostaglandin J2 (PGJ2) (PubMed:9084911). Participates in the formation of novel hepoxilin regioisomers (PubMed:21046276). Acts as a negative regulator of ferroptosis by mediating glutathione conjugation and detoxification of 4-hydroxynonenal (4-HNE) reactive aldehyde (PubMed:38016474). Negatively regulates CDK5 activity via p25/p35 translocation to prevent neurodegeneration (PubMed:21668448).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	GST3 also known as GST pi or GSTP is a protein part of the glutathione S-transferase family. These enzymes are involved in detoxifying processes by catalyzing the conjugation of glutathione to harmful substances. GSTP is approximately 23 kDa in size and is predominantly expressed in mammalian tissues including the liver and lung. These tissues play active roles in detoxifying external chemicals and managing oxidative stress in the body.
Biological function summary	GST3 contributes to the detoxification of xenobiotics and electrophilic compounds playing a protective role against cellular damage. It can exist as homo-dimers or form hetero-dimers with other GST family members participating in larger enzyme

	complexes. Through conjugation reactions GSTP helps in the detoxification processes thereby aiding cellular defenses and maintaining cellular redox balance.
Pathways	GST3 is an integral part of the phase II detoxification pathway and oxidative stress response. It interacts closely with other proteins such as Nrf2 (Nuclear factor erythroid 2-related factor 2) and helps regulate the transcription of antioxidant proteins that protect against oxidative damage. This enzyme plays a role in modulating the MAPK signaling pathway which influences cell proliferation and apoptosis.
Associated diseases and disorders	GSTP has links to several cancer types including liver and lung cancer. Its overexpression in tumors suggests its role in cancer cell survival and resistance to chemotherapy. GSTP interacts with cancer-associated proteins like c-Jun N-terminal kinase (JNK) influencing pathways that lead to aberrant cellular growth and transformation. It also has associations with neurodegenerative diseases given its role in counteracting oxidative stress which commonly underpins neurodegeneration.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

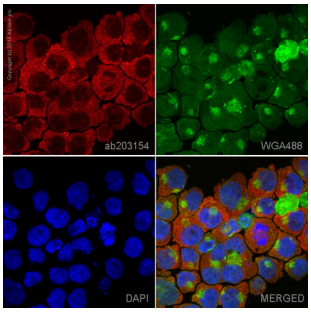
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-GST3 / GST pi antibody [EPR8263] (ab203154)

GST3 / GST pi Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GST3 / GST pi antibody

ab203154 staining GST3 / GST pi in K562 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab203154 at 1/50 dilution (shown in red). Cell membranes were labelled with WGA (Alexa Fluor® 488, shown in green). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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