

GSTP1 (3F2) Mouse mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P, IF-IC	H Mk	Endogenous	23	Mouse IgG1	#P09211	2950

Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:400 - 1:1600
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #10130.

Specificity/Sensitivity

GSTP1 (3F2) Mouse mAb detects endogenous levels of total GSTP1 protein. The antibody does not cross react with GST-tagged proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant GSTP1 protein.

Background

Glutathione S-transferases (GSTs) are a family of isoenzymes that detoxify electrophiles through conjugation to thiol-reduced glutathione (GSH). Thus, they are critical in protecting cells from toxins (drugs, pesticides, carcinogens) and oxidative stress (1). Eight isoforms of cytosolic-soluble GSTs (α , κ , μ , π , σ , θ , ζ , and ω) are identified, while only GST- α , μ , and π are described in the central nervous system (2). GSTP1 (GST π) is overexpressed in early stages of carcinogenesis and can be used as a neoplastic marker in tumor tissues (3). GSTP1 directly inhibits TRAF2 and JNK but not NF- κ B (4,5). Corresponding GSTP1 gene polymorphisms affect substrate selectivity and stability, and the oxidative milieu in dopaminergic neurons, which increases the susceptibility to Parkinson's disease (6).

Background References

1. Hayes, J.D. et al. (2005) *Annu Rev Pharmacol Toxicol* 45, 51-88.
2. Mannervik, B. et al. (2005) *Methods Enzymol* 401, 1-8.
3. Ali-Osman, F. et al. (1997) *Clin Cancer Res* 3, 2253-61.
4. Elsby, R. et al. (2003) *J Biol Chem* 278, 22243-9.
5. Wu, Y. et al. (2006) *Oncogene* 25, 5787-800.
6. Castro-Caldas, M. et al. (2009) *J Mol Neurosci* 38, 114-27.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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