

#3369 Store at -20C

GSTP1 (3F2) Mouse mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, 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

- Hayes, J.D. et al. (2005) *Annu Rev Pharmacol Toxicol* 45, 51-88.
- Mannervik, B. et al. (2005) *Methods Enzymol* 401, 1-8.
- Ali-Osman, F. et al. (1997) *Clin Cancer Res* 3, 2253-61.
- Elsby, R. et al. (2003) *J Biol Chem* 278, 22243-9.
- Wu, Y. et al. (2006) *Oncogene* 25, 5787-800.
- 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

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

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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