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#3369

GSTP1 (3F2) Mouse mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

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

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

Cross-Reactivity Key

H: Human **Mk:** Monkey

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