

#3369 Store at -20°C

# GSTP1 (3F2) Mouse mAb



100 µl  
 (10 Western mini-blots)

**Orders** ■ 877-616-CELL (2355)  
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New 01/09

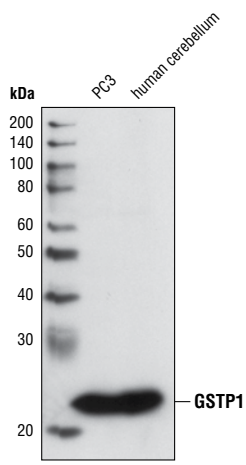
This product is for *in vitro* research use only and is not intended for use in humans or animals.  
 This product is not intended for use as a therapeutic or in diagnostic procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC Endogenous	H, Mk	23 kDa	Mouse IgG1**

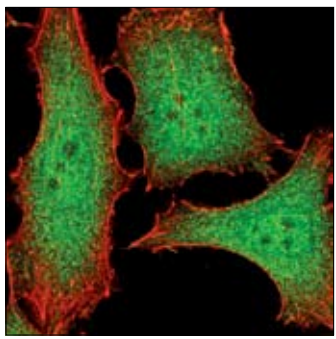
**Background:** Glutathione S-transferases (GSTs) are a family of isoenzymes that detoxify electrophiles through conjugation to thiol-reduced glutathione (GSH). Thus, they are critical in protecting cells from toxins (drugs, pesticides, carcinogens) and oxidative stress (1). Eight isoforms of cytosolic-soluble GSTs ( $\alpha$ ,  $\kappa$ ,  $\mu$ ,  $\pi$ ,  $\sigma$ ,  $\theta$ ,  $\zeta$ , and  $\omega$ ) are identified, while only GST- $\alpha$ ,  $\mu$ , and  $\pi$  are described in the central nervous system (2). GSTP1 (GST $\pi$ ) 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- $\kappa$ B (4,5). GSTP1 polymorphisms affect substrate selectivity and stability, and the oxidative milieu in dopaminergic neurons, which increases the susceptibility to Parkinson's disease (6).

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

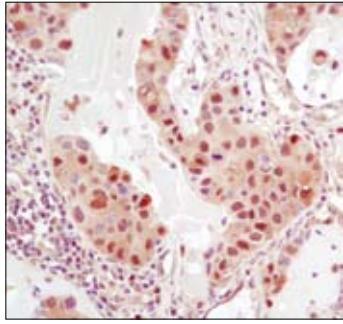
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with recombinant GSTP1 protein.



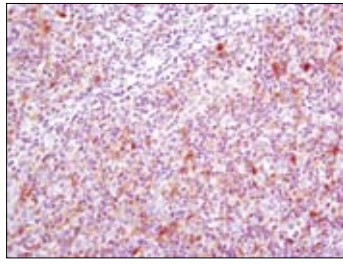
Western blot analysis of extracts from PC3 cells and human cerebellum using GSTP1 (3F2) Mouse mAb.



Confocal immunofluorescent analysis of PC3 cells using GSTP1 (3F2) Mouse mAb (green). Actin filaments have been labeled with DY-554 phalloidin (red).



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using GSTP1 (3F2) Mouse mAb.



Immunohistochemical analysis of paraffin-embedded human lymphoma using GSTP1 (3F2) Mouse mAb.

**Entrez-Gene ID** #2950  
**Swiss-Prot Acc.** #P09211

**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.

**\*Species cross-reactivity is determined by Western blot.**  
**\*\*Anti-mouse secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:800
<i>IHC protocol: Unmasking buffer/Antibody diluent Citrate/ SignalStain® Antibody Diluent #8112</i>	
Immunofluorescence (IF-IC)	1:100

For application specific protocols please see the web page for this product at [www.cellsignaling.com](http://www.cellsignaling.com).

**Companion Products:**

- SAPK/JNK (56G8) Rabbit mAb #9258
- Phospho-Ros (Tyr2274) Antibody #3078
- Parkin (Park8) Mouse mAb #4211
- Phototope®-HRP Western Blot Detection System, Anti-mouse IgG, HRP-linked Antibody #7072
- Anti-mouse IgG, HRP-linked Antibody #7076
- Prestained Protein Marker, Broad Range (Premixed Format) #7720
- Biotinylated Protein Ladder Detection Pack #7727
- 20X LumiGLO® Reagent and 20X Peroxide #7003

Please visit [www.cellsignaling.com](http://www.cellsignaling.com) for a complete listing of recommended companion products.

**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) Elsyby, 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. (2008) *J Mol Neurosci*, Epub ahead of print.

**IMPORTANT: For Western blots, incubate membrane with diluted 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 IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.