

### Instruction Manual

<b>Catalog Number</b>	PK-AB718-4413
<b>Synonyms</b>	GSTP1 Antibody: Glutathione S-transferase pi
<b>Description</b>	Glutathione S-transferases (GSTs) are a family of enzymes that play an important role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. Based on their biochemical, immunologic, and structural properties, the soluble GSTs are categorized into 4 main classes: alpha, mu, pi, and theta. The glutathione S-transferase pi gene (GSTP1) is a polymorphic gene encoding active, functionally different GSTP1 variant proteins that are thought to function in xenobiotic metabolism (i.e., the metabolism of environmental mutagens and carcinogens) and may play a role in susceptibility to cancer. More recent experiments have suggested that differential expression of GSTP1 also contributes to the sensitivity of xenobiotics in the substantia nigra and may influence the pathogenesis of reactive oxygen species-induced neurological disorders such as Parkinson's disease. CpG island hypermethylation of the GSTP1 promoter leading to the silencing of the GSTP1 gene has also been linked to cancer.
<b>Quantity</b>	100 µg
<b>Source / Host</b>	Rabbit
<b>Immunogen</b>	GSTP1 antibody was raised in rabbits against a 14 amino acid peptide from near the center of human GSTP1.
<b>Purification Method</b>	Affinity chromatography purified via peptide column.
<b>Clone / IgG Subtype</b>	Polyclonal antibody
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Specificity</b>	
<b>Formulation</b>	Antibody is supplied in PBS containing 0.02% sodium azide.
<b>Reconstitution</b>	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
<b>Storage &amp; Stability</b>	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
<b>Applications</b>	E, WB, IHC, IF    INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually.  GSTP1 antibody can be used for the detection of ATG10 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.
<b>Images</b>	Available upon request.
<b>References</b>	Pearson WR. Phylogenies of glutathione transferase families. <i>Methods Enzymol.</i> 2005; 401:186-204.  Clapper ML. Genetic polymorphism and cancer risk. <i>Curr. Oncol. Rep.</i> 2000; 2:251-6.  Smeyne M, Boyd J, Shepherd KR, etc. GSTpi expression mediates dopaminergic neuron sensitivity in experimental parkinsonism. <i>Proc. Natl. Acad. Sci. USA</i> 2007; 104:1977-82.  Ellinger J, Bastian PJ, Jurgan T, et al. CpG island hypermethylation at multiple gene sites in diagnosis and prognosis of prostate cancer. <i>Urology</i> 2008; 71:161-7.
<b>Images</b>	Available upon request.
<b>Related Products</b>	Cat.No. PK-AB718-4413P; GSTP1 Peptide Cat.No. PK-AB718-1205; Jurkat Cell Lysate

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