

## GSTP1 Antibody

### *GSTP1: Glutathione S-transferase pi*

**CATALOG NO.: 4413**

#### **BACKGROUND:**

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 (reviewed in 1). 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 (2). 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 (3). CpG island hypermethylation of the GSTP1 promoter leading to the silencing of the GSTP1 gene has also been linked to cancer (4).

#### **SOURCE:**

Rabbit polyclonal GSTP1 antibody was raised against a 14 amino acid peptide from near the center of human GSTP1 (Genbank accession No. NP\_000843).

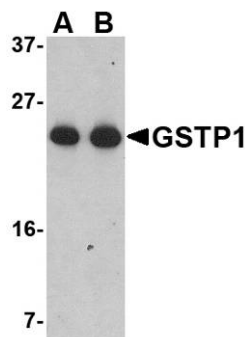
#### **APPLICATION:**

GSTP1 antibody can be used for the detection of ATG10 by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user). Jurkat lysate can be used as positive control. GSTP1 antibody is human, mouse and rat reactive.

**This product is for research use only.**

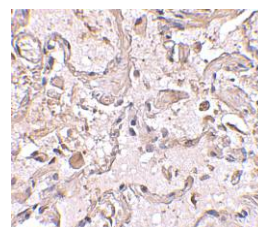
#### **STORAGE:**

GSTP1 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of GSTP1 in Jurkat cell lysate with GSTP1 antibody at (A) 0.5 and (B) 1 µg/ml.

Immunohistochemical staining of human lung tissue using GSTP1 antibody at 2.5 µg/ml.



#### **RELATED PRODUCTS:**

Blocking peptide, Catalog No. **4413P**.

Jurkat Cell Lysate, Catalog No. **1205**.

#### **REFERENCES:**

1. Pearson WR. Phylogenies of glutathione transferase families. *Methods Enzymol.* 2005; 401:186-204.
2. Clapper ML. Genetic polymorphism and cancer risk. *Curr. Oncol. Rep.* 2000; 2:251-6.
3. Smeyne M, Boyd J, Shepherd KR, etc. GSTpi expression mediates dopaminergic neuron sensitivity in experimental parkinsonism. *Proc. Natl. Acad. Sci. USA* 2007; 104:1977-82.
4. Ellinger J, Bastian PJ, Jurgan T, et al. CpG island hypermethylation at multiple gene sites in diagnosis and prognosis of prostate cancer. *Urology* 2008; 71:161-7. (08-01D)