

## GSTP1 Human

**Description:** GSTP1 Human Recombinant fused with 37 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 247 amino acids (1-210 a.a.) and having a molecular mass of 27.6kDa. The GSTP1 is purified by proprietary chromatographic techniques.

**Synonyms:** Glutathione S-transferase P, GST class-pi, GSTP1-1, GSTP1, FAEES3, GST3, PI, DFN7.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered colorless solution.

**Amino Acid Sequence:** MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHMPP  
YTVVYFPVRG RCAALRMLLA DQQQSWKEEV VTVETWQEGS LKASCLYQQL PKFQDGD LTL  
YQSNILRHL GRTLGLYGKD QQEALVDMV NDGVEDLRCK YISLIYTNYE AGKDDYVKAL  
PGQLKPFETL LSQNQGKTF IVGDQISFAD YNLLDLLLIH EVLAPGCLDA FPLLSAYVGR  
LSARPKLKAF LA

**Purity:** Greater than 95.0% as determined by SDS-PAGE.

### Formulation:

The GSTP1 solution contains 20mM Tris-HCl buffer (pH7.0), 30% glycerol, 1mM EDTA and 0.1mM PMSF.

### Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Introduction:

GSTP1 is a polymorphic gene encoding active, functionally different GSTP1 variant proteins that are believed to function in xenobiotic metabolism and have a part in susceptibility to cancer, and other diseases. GSTP1 is a glutathione S-transferase belonging to the pi class. GST family enzymes play a significant role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. Based upon the biochemical, immunologic and structural properties of the soluble GSTs they are grouped into 4 main classes: alpha, mu, pi, and theta. The GSTP1 enzyme acts by catalyzing the reaction of glutathione with an acceptor molecule to form a Sulfur-substituted glutathione. The reactions employing glutathione contribute the transformation of a broad range of electrophiles, including reactive products of lipid, protein, carcinogens, therapeutic drugs, environmental toxins, and products of oxidative stress. The GSTP1 inactivation through CpG hypermethylation is frequent in pituitary adenomas and may be a factor in aggressive pituitary tumor behavior. GSTP1 is may be a transcriptional target of the p53 tumor suppressor gene. Single-nucleotide polymorphism in GSTP1 is linked to modified protein binding, which influence GSTP1's contribution to carcinogen and drug metabolism, and possibly disease

**Biological Activity:**

Specific activity is

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