

## GSTO1 Human Mutant

**Description:** Several polymorphisms in the coding regions of the human GSTO1 have been identified. A polymorphism causing an alanine-to-aspartate (A140D) substitution in amino acid 140 produces a variant with lowered enzyme activities in the arsenic biotransformation. GSTO1 Variant Human Recombinant produced in E. Coli is single, a non-glycosylated, Polypeptide chain containing 241 amino acids fragment (1-241) having a total molecular mass of 36kDa and fused with a 4.5kDa amino-terminal hexahistidine tag. The GSTO1 is purified by proprietary chromatographic techniques.

Catalog #: ENPS-442

For research use only.

**Synonyms:** Glutathione S-transferase omega-1, GSTO 1-1, GSTO1, GSTTLP28, P28, DKFZp686H13163.

**Source:** Escherichia Coli.

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

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

**Formulation:**

GSTO1 protein is supplied in 1x PBS and 50% glycerol.

**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. Please avoid 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:**

GSTO1 belongs to the theta class glutathione S-transferase-like (GSTTL) protein family. GSTO1 is expressed in a broad array of human tissues and exhibits glutathione-dependent thiol transferase and dehydroascorbate reductase activities as well as catalyzing the reduction of monomethylarsonate which is an intermediate in the pathway of arsenic biotransformation. Furthermore, GSTO1 shields from oxidative stress which is a risk factor for Alzheimer disease, vascular dementia and stroke. GSTO1 is abundant in alveolar macrophages and airway secretions, with the levels reduced in chronic obstructive pulmonary disease patients. In mouse, the GSTO1 protein acts as a small stress response protein, probably involved in cellular redox homeostasis.

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