**BACKGROUND**

GSTO1 (glutathione S-transferase θ 1), also known as p28 or GSTTLp28, is a 241 amino acid protein that localizes to the cytoplasm and contains both an N-terminal and a C-terminal GST domain. Expressed ubiquitously with highest expression in heart, liver and skeletal muscle, GSTO1 exists as a homodimer that functions as both a Glutathione-dependent thioredoxin peroxidase and a dehydroascorbate reductase. Specifically, GSTO1 catalyzes the reaction of Glutathione with a wide variety of organic compounds to form thioethers, a process that is essential for the metabolism and detoxification of a variety of xenobiotics and carcinogens. Human GSTO1 shares 70% sequence homology with its rodent counterpart, suggesting a conserved role between species. Polymorphisms in the gene encoding GSTO1 may be associated with the development of childhood acute lymphoblastic leukemia, Parkinson’s disease and Alzheimer disease.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GSTO1 (human) mapping to 10q25.1.

**SOURCE**

GSTO1 (21) is a mouse monoclonal antibody raised against recombinant GSTO1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

GSTO1 (21) is recommended for detection of GSTO1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:300-1:3000).

Suitable for use as control antibody for GSTO1 siRNA (h): sc-75207, GSTO1 shRNA Plasmid (h): sc-75207-Sh and GSTO1 shRNA (h) Lentiviral Particles: sc-75207-V.

Molecular Weight of GSTO1: 31 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MCF7 whole cell lysate: sc-2206 or DU 145 cell lysate: sc-2288.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

2. Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

![Western blot analysis of GSTO1 expression in Jurkat (A), MCF7 (B) and 293K-3 (D) whole cell lysates.](image1)

![Western blot analysis of GSTO1 expression in Jurkat (A), U-87 MG (B) and HUVEC-C (C) whole cell lysates.](image2)

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.