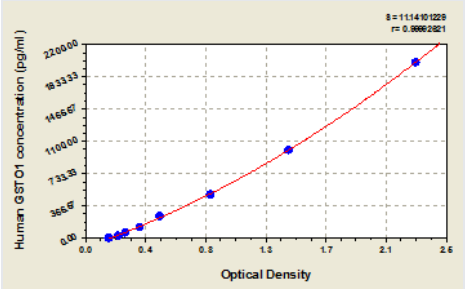
Glutathione S-Transferase Omega 1 (GSTO1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	glutathione S-transferase omega 1 (GSTO1), ELISA Kit
Full Product Name	Human Glutathione S-transferase omega-1, GSTO1 ELISA Kit
Product Gene Name	GSTO1 elisa kit
Product Synonym Names	Human Glutathione S-transferase omega-1 (GSTO1) ELISA kit; RP11-99N20.1; DKFZp686H13163; GSTTLp28; P28; glutathione S-transferase omega 1-1; glutathione transferase omega 1; glutathione-S-transferase like; glutathione-S-transferase omega 1; glutathione S-transferase omega 1
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, plasma, tissue homogenates, Cell lysates
Detection Range	31.2 pg/ml -2000 pg/ml.
Sensitivity	The minimum detectable dose of human GSTO1 is typically less than 7.8 pg/ml. The sensitivity of this assay, or Lower Limit of Detection (LLD) was defined as the lowest protein concentration that could be differentiated from zero. It was determined the mean O.D value of 20 replicates of the zero standard added by their three standard deviations.
Specificity	This assay has high sensitivity and excellent specificity for detection of human GSTO1. No significant cross-reactivity or interference between human GSTO1 and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Inter-assay Precision	Inter-assay Precision (Precision between assays): CV%<10%. Three samples of known concentration were tested in twenty assays to assess.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV%<8%. Three samples of known concentration were tested twenty times on one plate to assess.
Molecular Weight	27,566 Da
OMIM	605482
3D Structure	ModBase 3D Structure for P78417
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for GSTO1 elisa kit	**Principle of the assay:** This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for GSTO1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any GSTO1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for GSTO1 is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of GSTO1 bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of GSTO1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for GSTO1 purchase	MBS947735 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the glutathione S-transferase omega 1 (GSTO1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing GSTO1. The ELISA analytical biochemical technique of the MBS947735 kit is based on GSTO1 antibody-GSTO1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect GSTO1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, GSTO1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of GSTO1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GSTO1. It may not necessarily be applicable to this product.

NCBI GI #	300360532
NCBI GeneID	9446
NCBI Accession #	NP_001177931.1
UniProt Primary Accession #	P78417
UniProt Secondary Accession #	Q5TA03; Q7Z3T2; D3DRA3; F5H7H0
UniProt Related Accession #	P78417
GenBank Nucleotide #	NM_001191002.1
NCBI Official Full Name	glutathione S-transferase omega-1 isoform 2
NCBI Official Synonym Full Names	glutathione S-transferase omega 1
NCBI Official Symbol	GSTO1
NCBI Official Synonym Symbols	P28; SPG-R; GSTO 1-1; GSTTLp28; HEL-S-21
UniProt Protein Name	Glutathione S-transferase omega-1
UniProt Synonym Protein Names	Glutathione S-transferase omega 1-1; GSTO 1-1; Glutathione-dependent dehydroascorbate reductase (EC:1.8.5.1); Monomethylarsonic acid reductase (EC:1.20.4.2); MMA(V) reductase; S-(Phenacyl)glutathione reductase; SPG-R
Protein Family	Glutathione S-transferase
UniProt Gene Name	GSTO1
UniProt Synonym Gene Names	GSTTLP28; GSTO-1; GSTO 1-1; MMA(V) reductase; SPG-R
UniProt Entry Name	GSTO1_HUMAN
NCBI Protein Information	glutathione S-transferase omega-1; GSTO-1; MMA(V) reductase; glutathione-S-transferase like; monomethylarsonic acid reductase; S-(Phenacyl)glutathione reductase; epididymis secretory protein Li 21; glutathione S-transferase omega 1-1; glutathione-dependent dehydroascorbate reductase

NCBI Summary for GSTO1	The protein encoded by this gene is an omega class glutathione S-transferase (GST) with glutathione-dependent thiol transferase and dehydroascorbate reductase activities. GSTs are involved in the metabolism of xenobiotics and carcinogens. The encoded protein acts as a homodimer and is found in the cytoplasm. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]
UniProt Comments for GSTO1	GSTO1: Exhibits glutathione-dependent thiol transferase and dehydroascorbate reductase activities. Has S-(phenacyl)glutathione reductase activity. Has also glutathione S-transferase activity. Participates in the biotransformation of inorganic arsenic and reduces monomethylarsonic acid (MMA) and dimethylarsonic acid. Belongs to the GST superfamily. Omega family. Protein type: EC 1.20.4.2; EC 2.5.1.18; Transferase; Other Amino Acids Metabolism - glutathione; EC 1.8.5.1; Xenobiotic Metabolism - drug metabolism - cytochrome P450; Xenobiotic Metabolism - metabolism by cytochrome P450 Chromosomal Location of Human Ortholog: 10q25.1 Cellular Component: cytoplasm; cytosol Molecular Function: protein binding; glutathione transferase activity; glutathione dehydrogenase (ascorbate) activity; methylarsonate reductase activity; oxidoreductase activity Biological Process: positive regulation of skeletal muscle contraction via regulation of the release of sequestered calcium ion; xenobiotic metabolic process; L-ascorbic acid metabolic process; xenobiotic catabolic process
Research Articles on GSTO1	**1.** GSTT1 active genotype and GSTO1 Asp140Asp and GSTO2 Asp142Asp genotypes may have a prognostic/pharmacogenomic role in patients with muscle invasive bladder cancer.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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