Deleted in Malignant Brain Tumors 1 (DMBT1) ELISA Kit for Human

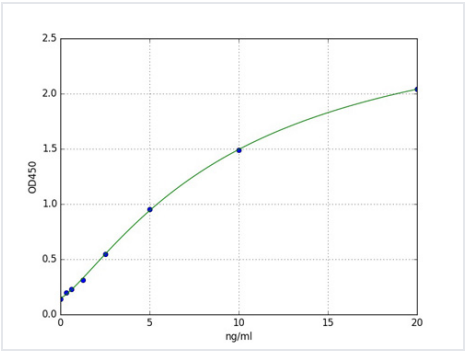
PRODUCT OVERVIEW

Product Name	Deleted in malignant brain tumors 1 protein (DMBT1), ELISA Kit
Full Product Name	Human Deleted in malignant brain tumors 1 protein ELISA Kit
Product Gene Name	DMBT1 elisa kit
Product Synonym Names	DMBT1/Deleted in malignant brain tumors 1 protein/Surfactant pulmonary-associated D-binding protein/Salivary agglutinin/SAG/Glycoprotein 340/Gp-340/Hensin/GP340/muclin
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.313-20ng/ml
Sensitivity	0.188ng/ml
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Molecular Weight	124,452 Da
OMIM	137800
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for DMBT1 elisa kit	Principle of the Assay||This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-Human DMBT1 antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-Human DMBT1 antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human DMBT1 amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of Human DMBT1 can be calculated.
Other Notes	Small volumes of DMBT1 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 DMBT1 purchase	MBS762334 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Deleted in malignant brain tumors 1 protein (DMBT1) 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 DMBT1. The ELISA analytical biochemical technique of the MBS762334 kit is based on DMBT1 antibody-DMBT1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DMBT1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DMBT1. 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(%).

Results of a typical standard run of a Human DMBT1 ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.313	0.625	1.25	2.5	5	10	20
Y	OD450	0.022	0.125	0.258	0.364	0.760	1.216	1.913	2.385

Typical Testing Data of DMBT1 elisa kit



Typical Standard Curve of DMBT1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DMBT1. It may not necessarily be applicable to this product.

NCBI GI #	148539842
NCBI GeneID	1755
NCBI Accession #	NP_015568.2
UniProt Secondary Accession #	Q59EX0; Q5JR26; A6NDG4; A6NDJ5; A8E4R5; B1ARE7; B1ARE8; B1ARE9; B1ARF0; B7Z8Y2; F8WEF7
UniProt Related Accession #	Q9UGM3
GenBank Nucleotide #	NM_007329.2
NCBI Official Full Name	deleted in malignant brain tumors 1 protein isoform b
NCBI Official Synonym Full Names	deleted in malignant brain tumors 1
NCBI Official Symbol	DMBT1
NCBI Official Synonym Symbols	GP340; muclin
UniProt Protein Name	Deleted in malignant brain tumors 1 protein
UniProt Synonym Protein Names	Glycoprotein 340; Gp-340; Hensin; Salivary agglutinin; SAG; Surfactant pulmonary-associated D-binding protein
Protein Family	Deleted in malignant brain tumors 1 protein
UniProt Gene Name	DMBT1
UniProt Synonym Gene Names	GP340; Gp-340; SAG
UniProt Entry Name	DMBT1_HUMAN
NCBI Protein Information	deleted in malignant brain tumors 1 protein
NCBI Summary for DMBT1	Loss of sequences from human chromosome 10q has been associated with the progression of human cancers. The gene DMBT1 was originally isolated based on its deletion in a medulloblastoma cell line. DMBT1 is expressed with transcripts of 6.0, 7.5, and 8.0 kb in fetal lung and with one transcript of 8.0 kb in adult lung, although the 7.5 kb transcript has not been characterized. The DMBT1 protein is a glycoprotein containing multiple scavenger receptor cysteine-rich (SRCR) domains separated by SRCR-interspersed domains (SID). Transcript variant 2 (8.0 kb) has been shown to bind surfactant protein D independently of carbohydrate recognition. This indicates that DMBT1 may not be a classical tumor suppressor gene, but rather play a role in the interaction of tumor cells and the immune system. [provided by RefSeq, Nov 2014]

UniProt Comments for DMBT1	DMBT1: May be considered as a candidate tumor suppressor gene for brain, lung, esophageal, gastric, and colorectal cancers. May play roles in mucosal defense system, cellular immune defense and epithelial differentiation. May play a role as an opsonin receptor for SFTPD and SPAR in macrophage tissues throughout the body, including epithelial cells lining the gastrointestinal tract. May play a role in liver regeneration. May be an important factor in fate decision and differentiation of transit-amplifying ductular (oval) cells within the hepatic lineage. Required for terminal differentiation of columnar epithelial cells during early embryogenesis. May function as a binding protein in saliva for the regulation of taste sensation. Binds to HIV-1 envelope protein and has been shown to both inhibit and facilitate viral transmission. Displays a broad calcium-dependent binding spectrum against both Gram-positive and Gram-negative bacteria, suggesting a role in defense against bacterial pathogens. Binds to a range of poly- sulfated and poly-phosphorylated ligands which may explain its broad bacterial-binding specificity. Inhibits cytoinvasion of S.enterica. Associates with the actin cytoskeleton and is involved in its remodeling during regulated exocytosis. Interacts with pancreatic zymogens in a pH-dependent manner and may act as a Golgi cargo receptor in the regulated secretory pathway of the pancreatic acinar cell. Defects in DMBT1 are involved in the development of glioma (GLM). Gliomas are central nervous system neoplasms derived from glial cells and comprise astrocytomas, glioblastoma multiforme, oligodendrogliomas, and ependymomas. Homozygous deletions may be the predominant mechanism of DMBT1 inactivation playing a role in carcinogenesis. DMBT1 is deleted in medulloblastoma and glioblastoma cell lines; point mutations have also been reported in patients with glioma. A loss or reduction of DMBT1 expression has been seen in esophageal, gastric, lung and colorectal carcinomas as well. Belongs to the DMBT1 family. 8 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Membrane protein, integral; Tumor suppressor; Oncoprotein; Secreted, signal peptide Chromosomal Location of Human Ortholog: 10q26.13 Cellular Component: cytoplasm; extracellular region; extracellular space; extrinsic to membrane; phagocytic vesicle membrane; proteinaceous extracellular matrix; zymogen granule membrane Molecular Function: calcium-dependent protein binding; pattern recognition receptor activity; protein binding; scavenger receptor activity Biological Process: cellular protein metabolic process; defense response to virus; epithelial cell differentiation; induction of bacterial agglutination; innate immune response; inner cell mass cell proliferation; pattern recognition receptor signaling pathway; positive regulation of epithelial cell differentiation; protein transport; receptor-mediated endocytosis; viral reproduction Disease: Glioma Susceptibility 1; Medulloblastoma
Research Articles on DMBT1	**1.** multiallelic copy number variation (CNV) within DMBT1 is extensive across all populations.
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