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Product datasheet

Recombinant Human DMBT1 protein ab114867

1 Image

Description

Product name	Recombinant Human DMBT1 protein
Expression system	Wheat germ
Accession	Q9UGM3
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	DYSCGGFLSQPSGDFSSPFYPGNYPNNAKCVWDIEVQNN YRVTVIFRDVQ LEGGCNYDYIEVFDGPYRSSPLIARVCDGARGSFTSSSNF MSIRFISDHS ITRRGFRAE
Predicted molecular weight	38 kDa including tags
Amino acids	1377 to 1485

Specifications

Our **Abpromise guarantee** covers the use of **ab114867** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	ELISA SDS-PAGE
Form	Liquid
Additional notes	This product was previously labelled as gp340.

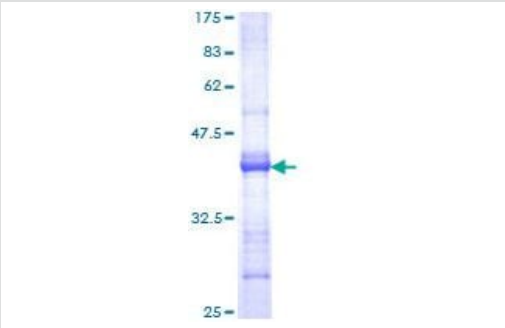
Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl

General Info

Function	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.
Tissue specificity	Highly expressed in alveolar and macrophage tissues. In some macrophages, expression is seen on the membrane, and in other macrophages, strongly expressed in the phagosome/phagolysosome compartments. Expressed in lung, trachea, salivary gland, small intestine and stomach. In pancreas, expressed in certain cells of the islets of Langerhans. In digestive tract, confined to tissues with large epithelial surfaces. In intestinal tissue, moderately expressed in epithelial cells of the midcrypts and the crypt base. Expression is significantly elevated in intestinal tissue from patients with inflammatory bowel disease (IBD), particularly in surface epithelial and Paneth cells, but not in IBD patients with mutant NOD2. Present in crypt bases of the duodenum, in crypt tops of the colon, and in collecting ducts of the cortical kidney. Expressed in stratified squamous epithelium of vagina and in outer luminar surface and basilar region of columnar epithelial cells in cervix (at protein level). Isoform 1 is secreted to the lumen of the respiratory tract.
Involvement in disease	Defects in DMBT1 are involved in the development of glioma (GLM) [MIM:137800]. Gliomas are central nervous system neoplasms derived from glial cells and comprise astrocytomas, glioblastoma multiforme, oligodendrogliomas, and ependymomas. Note=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.
Sequence similarities	Belongs to the DMBT1 family. Contains 2 CUB domains. Contains 14 SRCR domains. Contains 1 ZP domain.
Developmental stage	Expressed in fetal lung, intestine and skin. Secreted to the extracellular matrix (ECM) in certain fetal epithelia.
Domain	The SRCR domains mediate binding to bacteria. The minimal bacterial-binding site is an 11-residue repeat of GRVEVLYRGSW where VEVL and W are critical residues.
Post-translational modifications	Highly N- and O-glycosylated. The O-glycans are heavily sulfated.
Cellular localization	Secreted. Some isoforms may be membrane-bound. Localized to the lumenal aspect of crypt cells in the small intestine. In the colon, seen in the lumenal aspect of surface epithelial cells. Formed in the ducts of von Ebner gland, and released into the fluid bathing the taste buds contained in the taste papillae.

Images



SDS-PAGE - Recombinant Human DMBT1 protein (ab114867)

ab114867 analysed by 12.5% SDS-PAGE and stained with Coomassie Blue.

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