

Human DMBT1 / Muclin Protein (His Tag)

Catalog Number: 11678-H08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

GP340; muclin; CRP; CRP-[a]; CRP-[b]; Crpd; DBMT1; gp300; p80

Protein Construction:

A DNA sequence encoding the N-terminal segment of human DMBT1 (NP_004397.2) (Met 1-Ser 220) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized recombinant human Galectin-3 (Cat:10289-HNAE-E) at 10 µg/ml (100 µl/well) can bind biotinylated DMBT1-His (Cat:11678-H08H) with a linear range of 0.06-1.0 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gly 21

Molecular Mass:

The recombinant human DMBT1 consists of 211 amino acids and has a predicted molecular mass of 22.6 kDa. The apparent molecular mass of rh DMBT1 is approximately 35-45 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

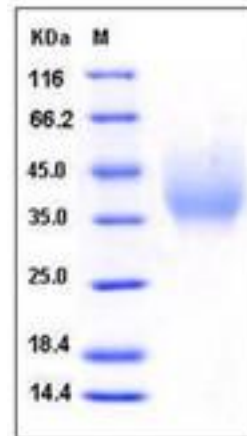
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Deleted in malignant brain tumors 1 protein, also known as glycoprotein 340, surfactant pulmonary-associated D-binding protein, DMBT1 and GP340, is a secreted protein which belongs to the DMBT1 family. DMBT1 contains 2 CUB domains, 14 SRCR domains and 1 ZP domain. It is highly expressed in alveolar and macrophage tissues. In some macrophages, expression is detected on the membrane, and in other macrophages, it is strongly expressed in the phagosome/phagolysosome compartments. 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.

DMBT1 may be considered as a candidate tumor suppressor for brain, lung, esophageal, gastric, and colorectal cancers. It may play roles in mucosal defense system, cellular immune defense and epithelial differentiation. DMBT1 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. It may be an important factor in fate decision and differentiation of transit-amplifying ductular (oval) cells within the hepatic lineage. DMBT1 may function as a binding protein in saliva for the regulation of taste sensation. It binds to HIV-1 envelope protein and has been shown to both inhibit and facilitate viral transmission.

References

1. Mollenhauer J., *et al.*, (1997), DMBT1, a new member of the SRCR superfamily on chromosome 10q25.3-q26.1 is deleted in malignant brain tumours. *Nat. Genet.* 17:32-39.
2. Holmskov U., *et al.*, (1999), Cloning of gp-340, a putative opsonin receptor for lung surfactant protein D. *Proc. Natl. Acad. Sci. U.S.A.* 96:10794-10799.
3. Mollenhauer J., *et al.*, (1999), The genomic structure of the DMBT1 gene: evidence for a region with susceptibility to genomic instability. *Oncogene* 18:6233-6240.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>