

Recombinant Rat CD98 Protein (His Tag)

Catalog Number: PKSR030219

Note: Centrifuge before opening to ensure complete recovery of vial contents.

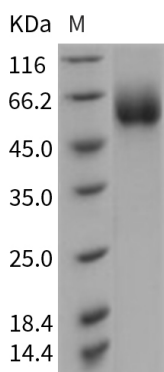
Description

Species	Rat
Source	HEK293 Cells-derived Rat CD98 protein Ala100-Ala527, with an N-terminal His
Calculated MW	49.7 kDa
Observed MW	58 kDa
Accession	Q794F9
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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4F2 cell-surface antigen heavy chain, also known as 4F2 heavy chain antigen, Lymphocyte activation antigen 4F2 large subunit, CD98, SLC3A2 and MDU1, is a single-pass type II membrane protein which belongs to the SLC3A transporter family. MDU1 is expressed ubiquitously in all tissues tested with highest levels detected in kidney, placenta and testis and weakest level in thymus. During gestation, expression in the placenta is significantly stronger at full-term than at the mid-trimester stage. MDU1 is expressed in HUVECS and at low levels in resting peripheral blood T-lymphocytes and quiescent fibroblasts. It is expressed in fetal liver and in the astrocytic process of primary astrocytic gliomas. MDU1 is also expressed in retinal endothelial cells and in the intestinal epithelial cell line Caco2-BBE. MDU1 is required for the function of light chain amino-acid transporters. It involved in sodium-independent, high-affinity transport of large neutral amino acids such as phenylalanine, tyrosine, leucine, arginine and tryptophan. MDU1 is involved in guiding and targeting of LAT1 and LAT2 to the plasma membrane. MDU1 plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. It is required for normal and neoplastic cell growth. When associated with SLC7A5/LAT1, MDU1 is also involved in the transport of L-DOPA across the blood-brain barrier, and that of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane in tissues such as placenta.

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