Data Sheet (Cat.No.TMPY-03175)

TargetMol

Claudin-11 Protein, Human, Recombinant (mFc)

General Information

Synonyms:	claudin 11;OTM;OSP
Protein Construction:	A DNA sequence encoding the human CLDN11 (O75508) (Val23-Arg82) was expressed with the Fc region of mouse IgG1 at the N-terminus. Predicted N terminal: Asp
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O75508
Molecular Weight:	33.2 kDa (predicted); 37 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Claudin-11, also known as CLDN11, belongs to the group of claudins. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands function as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions.Claudin-11 is a tight junction associated protein and is a major component of central nervous system (CNS) myelin that is necessary for normal

CNS function. Human blood-testis barrier disruption is related to a dysfunction of CLDN11 gene. It plays an important role in regulating proliferation and migration of oligodendrocytes.

Reference

Tsukita S,et al. (2001) Multifunctional strands in tight junctions. Nat Rev Mol Cell Biol. 2(4): 285-3.
Heiskala M,et al. (2001) The roles of claudin superfamily proteins in paracellular transport. Traffic 2. (2):93-8.
Bronstein JM,et al. (2000) Involvement of OSP/claudin-11 in oligodendrocyte membrane interactions: role in biology and disease. J Neurosci Res. 59(6):706-11.

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