Data Sheet (Cat.No.TMPY-04308)

TargetMol

CADM4 Protein, Human, Recombinant (hFc)

General Information

Synonyms: Necl-4;IGSF4C;NECL4;cell adhesion molecule 4;synCAM4;TSLL2

Protein Construction: A DNA sequence encoding the human CADM4 (NP_660339.1) (Met1-Tyr323) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Pro 21

Species: Human

Expression Host: HEK293 Cells

Accession: Q8NFZ8

Molecular Weight: 60.1 kDa (predicted)

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: > 95 % 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

Immunoglobulin superfamily member 4C (IGSF4C), also known as CADM4 or NECL-4, is an immunoglobulin (Ig) superfamily molecule showing significant homology with a lung tumor suppressor, TSLC1. CADM4/IGSF4C/NECL-4 protein is mainly expressed in the kidney, bladder, and prostate in addition to the brain. Experiments have reported the biological significance of CADM4/IGSF4C/NECL-4 in the urinary tissues. An immunohistochemical study reveals that CADM4 is expressed at the cell-cell attachment sites in the renal tubules, the transitional

epithelia of the bladder, and the glandular epithelia of the prostate. IGSF4-immunoreactivity (IR) was observed diffusely in the telencephalic wall, whereas it became rather confined to the subplate, the cortical plate and the subventricular zone as the development proceeded. IGSF4-IR gradually decreased after birth and disappeared in adulthood. IGSF4 remained at low levels throughout embryonic stage, whereas it increased after birth. These spatiotemporal patterns of the expression suggest that IGSF4 plays crucial roles in the development of both telencephalon and cerebellum. CADM4/IGSF4C/NECL-4 is ectopically expressed in adult T-cell leukemia (ATL) cells, providing not only a diagnostic marker for ATL, but also a possible therapeutic target against its invasion. The distinct roles of CADM4/IGSF4C/NECL-4 in the oncogenesis of carcinomas and ATL could be due to tissue-specific differences in the downstream cascades, and is a novel concept with respect to cell adhesion in human oncogenesis.

Reference

Williams YN,et al.(2006) Cell adhesion and prostate tumor-suppressor activity of TSLL2/IGSF4C, an immunoglobulin superfamily molecule homologous to TSLC1/IGSF4. Oncogene. 25(10): 1446-53.
Ohta Y,et al.(2005) Spatiotemporal patterns of expression of IGSF4 in developing mouse nervous system. Brain Res Dev Brain Res. 156(1): 23-31.
Shingai T,et al.(2003) Implications of nectin-like molecule-2 /IGSF4 /RA175 /SgIGSF /TSLC1 /SynCAM1 in cell-cell adhesion and transmembrane protein localization in epithelial cells. J Biol Chem. 278(37): 35421-7.