

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived human ADAM28 protein
Leu72 & Leu191-Ala623, with a C-terminal 6-His tag
Accession # Q9UKQ2

N-terminal Sequence Analysis Leu72 & Leu191

Predicted Molecular Mass 49 & 62 kDa

SPECIFICATIONS

SDS-PAGE 59-80 kDa, reducing conditions

Activity Measured by its ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. The ED₅₀ for this effect is 0.250-2.50 µg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >70%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in MES and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

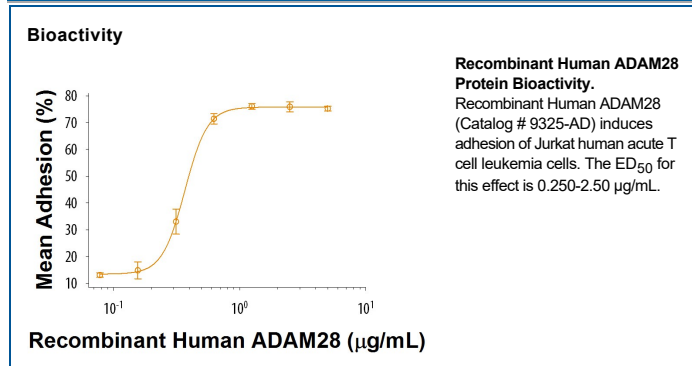
Reconstitution Reconstitute at 200 µg/mL in water.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

A disintegrin and metalloprotease domain-containing protein 28 (ADAM28), also known as MDC-L, is a member of the M12B peptidase family of enzymes. It is synthesized as an approximately 80-90 kDa glycosylated proprotein that is processed to a mature form later in the secretory pathway (1-3). After the removal of the propeptide that contains a cysteine switch motif, the activated form of ADAM28 consists of a 467 amino acid (aa) extracellular domain (ECD) which contains a peptidase, disintegrin, cysteine-rich and EGF-like domains, followed by a 21 aa transmembrane segment and an 89 aa cytoplasmic domain (3). Alternative splicing generates additional isoforms with a variety of substitutions and deletions in the cysteine-rich and EGF-like domains (1). Within the ECD, human ADAM28 shares 73% aa sequence identity with mouse and rat ADAM28 (3). ADAM28 is a cell surface protein that is involved in a variety of cell-cell and cell-matrix interactions, including fertilization, muscle development, and neurogenesis (4-6), and exhibits catalytic activity to insulin-like growth factor binding protein-3 (7). Like many members of the ADAM proteins, the disintegrin domain of ADAM28 interacts with integrin to influence cell adhesion and cell-cell interaction (8). ADAM28 can mediate the adhesion of the Jurkat cells, T-lymphoma cell line, through integrin $\alpha 4\beta 1$ (9).

References:

1. Roberts, C.M. *et al.* (1999) J. Biol. Chem. **274**:29251.
2. McGinn, O.J. *et al.* (2011) Cell Biol. Int. **35**:1043.
3. Howard, L. *et al.* (2000) Biochem. J. **348**:21.
4. Mochizuki, S. and Okada Y, (2007) Cancer Sci. **98**:621.
5. Schlondorff, J. *et al.* (1999) J. Cell Sci. **112**:3603.
6. Blobel, C.P. (1997) Cell **90**:589.
7. Mochizuki S. and Okada Y. (2009) Curr. Pharm. Des. **15**:2349.
8. Edwards, L. *et al.* (2008) Molecular Aspects of Medicine **29**:258.
9. Bridges, L. *et al.* (2002) J. Biol. Chem. **277**:3784.