

CDH13, Human, Recombinant, 0.1 mg

Catalog Number 5125

DESCRIPTION

CDH13 gene encodes a member of the cadherin superfamily. The encoded protein is localized to the surface of the cell membrane and is anchored by a GPI moiety, rather than by a transmembrane domain. The protein lacks the cytoplasmic domain characteristic of other cadherins, and so is not thought to be a cell-cell adhesion glycoprotein. This protein acts as a negative regulator of axon growth during neural differentiation. It also protects vascular endothelial cells from apoptosis due to oxidative stress, and is associated with resistance to atherosclerosis. The gene is hypermethylated in many types of cancer.

Full-length extracellular domain of human CDH13 gene (139-693 aa) was constructed with 31 N-terminal T7/His tag and expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

CHARACTERISTICS

Parameter, Testing, and Method	CDH13, Human, Recombinant Catalog # 5125
Quantity	0.1 mg (100 µg/vial)
Volume	0.2 mL
Concentration	0.5 mg/mL
Purity	≥90% as measured by SDS PAGE
Formulation	Formulated in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, L-Arginine, DTT and Glycerol.
Form	Solution
Production Type	Recombinant – <i>E. coli</i>
Storage Temperature	Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days
Shelf Life	12 months after receipt
Sterilization Method	Filtration
Cell Attachment Activity	Passes
Sterility	No growth
Accession No.	NP_001248

Recombinant Sequence	MASMTGGQQMGRGHHHHHHGNYFQGGEFEL SIVVSPILIPENQRQPFPRDVGKVVDSRPERSKF RLTGKGVDPQEPKGIFRINENTGSVSVTRTLDFREVI AVYQLFVETTDVNGKTLEGVPVLEVIDQNDNR PIFREGPYIGHVMEGSPTGTTVMRMTAFDADDP ATDNALLRYNIRQQTPDKPSPNMFYIDPEKGDIV TVVSPALLDRETLENPKYELIIEAQDMAGLDVGL TGTATATIMIDDKNDHSPKFTKKEFQATVEEGAV GVIVNLTVEDKDDPTTGAWRAAYTINGNPGQSF EIHTNPQTNEGMLS VVKPLDYEISAFHTLLIKVEN EDPLVPDVSYGPSSTATVHITVLDVNEGPFVYDP PMMVTRQEDLSVGSVLLTVNATDPSLQHQTR YSVYKDPAGWLNINPINGTVDTTAVLDRESFVD NSVYTALFLAIDSGNPPATGTGTLITLEDVNDN APFIYPTVAEVCDDAKNLSVILGASDKDLHPNT DPFKFEIHKQAVPDKVWKISKINNTALVSLQLN LNKANYNLPIMVTDSGKPPMTNITDLRVQVCS RNSKVCNAAG
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APPLICATIONS

This product is for R&D use only and is not intended for human or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

INSTRUCTIONS FOR USE

Use these recommendations as guidelines to determine the optimal coating conditions for your culture system.

1. Thaw CDH13 and dilute to desired concentration using serum-free medium or PBS. The final solution should be sufficiently dilute so that the volume added covers the surface evenly.
2. Add appropriate amount of diluted material to culture surface.
3. Incubate at room temperature for approximately 1 – 2 hours.
4. Aspirate remaining material.
5. Rinse plates carefully with dH₂O– avoid scratching bottom surface of plates.
6. Plates are ready for use. They may also be stored at 2-8°C damp or air dried if sterility is maintained.

Note: Coating this recombinant protein at 1-10 µg / well (6 well plate) in neuronal cell specific medium can be used for 1) human neuronal cell and vascular endothelial cell / receptor interaction study or 2) for human neuronal and vascular endothelial cell/receptor interaction *in vitro*.

REFERENCES

- (1) Ivanov, D., et al. Cell adhesion molecule T-cadherin regulates vascular cell adhesion, phenotype and motility Exp. Cell Res. 293 (2), 207-218 (2004).
- (2) Andreeva, A.V., et al. T-cadherin modulates endothelial barrier function. J. Cell. Physiol. 223 (1), 94-102 (2010).