

## CDH3, Human, Recombinant, 0.05 mg

Catalog Number 5124

### DESCRIPTION

Human CDH3 gene is a classical cadherin from the cadherin superfamily. The encoded protein is a calcium-dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. This gene is located in a six-cadherin cluster in a region on the long arm of chromosome 16 that is involved in loss of heterozygosity events in breast and prostate cancer. In addition, aberrant expression of this protein is observed in cervical adenocarcinomas. Mutations in this gene have been associated with congenital hypotrichosis with juvenile macular dystrophy.

Full-length extracellular domain of human CDH3 gene (108 - 645 aa) was constructed with 29 N-terminal T7/His tag and expressed in *E. coli* as inclusion bodies. The final product was refolded using a unique "temperature shift inclusion body refolding" technology and chromatographically purified.

### Characteristics

Parameter, Testing, and Method	CDH3, Human, Recombinant Catalog # 5124
Quantity	0.05 mg (50 µg/vial)
Volume	0.1 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	-20 °C
Shelf Life	12 months after receipt
Sterilization Method	Filtration
Cell Attachment Activity	Passes
Sterility	No growth

Gene Symbols	CDH3 (CDHP; HJMD; PCAD)
Accession Number	NP_001784
Recombinant Protein Sequence	MASMTGGQQMGRGHHHHHHGNLY FQGGEFDWVVPAPISVPENKGPFPQ RLNQLKSNKDRDTKIFYSITGPGADS PPEGVFAVEKETGWLLLNKPLDREEI AKYELFGHAVSENGASVEDPMNISII VTDQNDHKPKFTQDTRFRGSVLEGLV PGTSVMQVTATDEDDAIYTYNGVVA YSIHSQEPKDPHDLMTIHRSTGTIS VISSGLDREKVPEYTLTIQATDMDGD GSTTTAVAVVEILDANDNAPMFDPQ KYEAHVPENAVGHEVQRLTVDLDA PNSPAWRATYLMGGDDGDHFTITT HPESNQGILTTRKGLDFEAKNQHTLY VEVTNEAPFVLKLPSTATIVVHVED VNEAPVFPVPPSKVVEVQEGIPTGEP VCVYTAEDPKENQKISYRILRDPAG WLAMPDPSGQVAVGTLDREDEQF VRNNIYEVMLAMDNGSPPTTGTGT LLLTLIDVNDHGPVPEPRQITICNQSP VRQVLNITDKLSPHTSPFQAQLTDD SDIYWTAEVNEEGDTVVLSLKKFLKQ DTYDVHLSLSDHGNKEQLTVIRATVC DCHGHVETCPGPWKGG

### 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 CDH3 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. Note: Use 1 ml PBS per well in a 6-well plate.
2. Add 1 – 10 µg protein to each well and incubate at 2 to 10°C overnight.
3. After incubation, aspirate remaining material.
4. Plates are ready for use. They may also be stored at 2-8°C damp or air dried if sterility is maintained.

Coating this recombinant protein at 1-10 ug / well (6 well plate) in T cell specific medium can be used 1) for human tumor cell metastatic regulation study *in vitro* or 2) as a highly purified recombinant antigen as cancer biomarker for diagnosis application development.

#### **REFERENCES**

- (1) Cheung,L.W., eal. P-cadherin cooperates with insulin-like growth factor-1 receptor to promote metastatic signaling of gonadotropin-releasing hormone in ovarian cancer via p120 catenin. *Oncogene* 30 (26), 2964-2974 (2011)
- (2) Turashvili,G., et al. P-cadherin expression as a prognostic biomarker in a 3992 case tissue microarray series of breast cancer. *Mod. Pathol.* 24 (1), 64-81 (2011)