LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CDH6 Protein
Catalog Number: hRP-1600
Manufacturer: LD Biopharma, Inc.

Introduction

Human cadherin-6 (CDH6) gene encodes a member of the cadherin superfamily. Cadherins are membrane glycoproteins that mediate homophilic cell-cell adhesion and play critical roles in cell differentiation and morphogenesis. CDH6 protein is a type II cadherin and may play a role in kidney development as well as endometrium and placenta formation. Decreased expression of this gene may be associated with tumor growth and metastasis.

Full-length extracellular domain of human CDH6 extracellular domain cDNA (67 - 615 aa) was constructed with codon optimization using gene synthesis and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	CDH6 (CAD6; KCAD)
Accession Number:	NP_004923.1
Species:	Human
Size:	50 µg / Vial
Composition:	1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Paul R, et al., *Cadherin-6, a cell adhesion molecule specifically expressed in the proximal renal tubule and renal cell carcinoma*. Cancer Res. 57 (13), 2741-2748 (1997)

MacCalman CD, et al., *Type 2 cadherins in the human endometrium and placenta: their*

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putative roles in human implantation and placentation Am. J. Reprod. Immunol. 39 (2), 96-107 (1998)

Shimazui T, et al., *Alterations in expression of cadherin-6 and E-cadherin during kidney development and in renal cell carcinoma*. Eur. Urol. 38 (3), 331-338 (2000)

Kalushkova A, et al., *Polycomb target genes are silenced in multiple myeloma*. PLoS ONE 5 (7), E11483 (2010)

Applications

1. May be used for in vitro CDH6 human ES cell differentiation and activities' regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used for protein-protein interaction assay.
3. Potential biomarker protein for clinical monitoring NK cell function in vitro.
4. Potential biomarker protein for clinical applications such as monitoring gastric cancer or CML diseases.
5. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHGNLYFQGEFTGSDYQYVGKLHSDQDRGDGSLKYILSGDGAGDLFI
INENTGDIQATKRLDREEKPVYILRAQAINRRTGRPVEPESEFIIKIHDINDNEPIFTKEVYTA
TVPEMSDVGTFVVQVTATDADDPTYGNSAKVVYSILQGQPYFSVESETGIIKTALLNMDRENRE
QYQVVIQAKDMGGQMGGLSGTTTVNITLTDVNDNPPRFPQSTYQFKTPESSPPGTPIGRIKASD
ADVGENAEIEYSITDGEGLDMFDVITDQETQEGIITVKKLLDFEKKKVYTLKVEASNPYVEPRF
LYLGPFKDSATVRIVVEDVDEPPVFSKLAYILQIREDAQINTTIGSVTAQDPDAARNPVKYSVD
RHTDMDRIFNIDSGNGSIFTSKLLDRETLLWHNITVIATEINNPKQSSRVPLYIKVLDVNDNAP
EFAEFYETFVCEKAKADQLIQTLHAVDKDDPYSGHQFSFSLAPEAASGSNFTIQDNKDNTAGIL
TRKNGYNRHEMSTYLLPVVISDNDYPVQSSTGTVTVRVCACDHHGNMQSCHAEALIHPTGLSTG
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