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Product datasheet for RC220731

E Cadherin (CDH1) (NM_004360) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	E Cadherin (CDH1) (NM_004360) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	E Cadherin
Synonyms:	Arc-1; BCDS1; CD324; CDHE; ECAD; LCAM; UVO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC220731 representing NM_004360
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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Protein Sequence:

>RC220731 representing NM_004360
Red=Cloning site Green=Tags(s)

MGPWSRSLSALLLLLQVSSWLCQEPEPCHPGFDAESYTFTVPRRHLERGRVLGRVNFEDCTGRQRTAYFS
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TFPNSSPGLRRQKRDWVIPPISCPENEKGPFPKNLVQIKSNKDKEGKVFYSITGQGADTPPVGVFIIERE
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EAASLSSLNSSESDKDQDYDYLNEWGNRFKKLADMYGGGEDD

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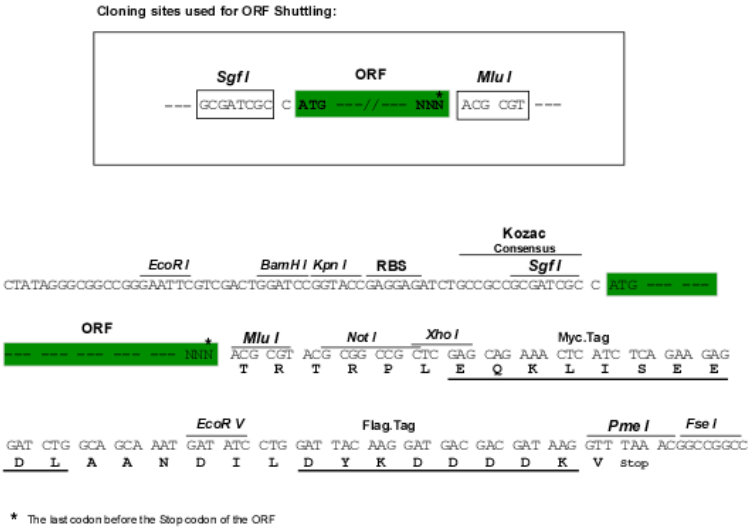
Chromatograms: https://cdn.origene.com/chromatograms/mg2573_b03.zip

Restriction Sites: SgfI-MluI

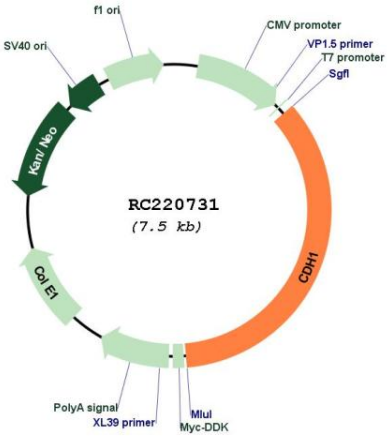
Cloning Scheme:



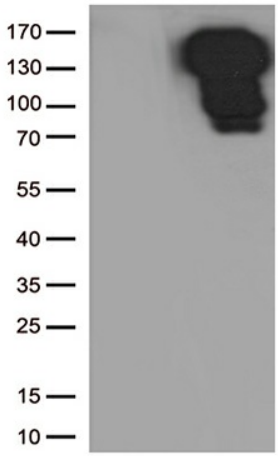
ACCN:	NM_004360
ORF Size:	2646 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_004360.5
RefSeq Size:	4828 bp
RefSeq ORF:	2649 bp
Locus ID:	999
UniProt ID:	P12830
Cytogenetics:	16q22.1
Domains:	Cadherin_C_term, CA
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways:	Adherens junction, Bladder cancer, Cell adhesion molecules (CAMs), Endometrial cancer, Melanoma, Pathogenic Escherichia coli infection, Pathways in cancer, Thyroid cancer
MW:	97.46 kDa

Gene Summary: This gene encodes a classical cadherin of the cadherin superfamily. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature glycoprotein. This calcium-dependent cell-cell adhesion protein is comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Mutations in this gene are correlated with gastric, breast, colorectal, thyroid and ovarian cancer. Loss of function of this gene is thought to contribute to cancer progression by increasing proliferation, invasion, and/or metastasis. The ectodomain of this protein mediates bacterial adhesion to mammalian cells and the cytoplasmic domain is required for internalization. This gene is present in a gene cluster with other members of the cadherin family on chromosome 16. [provided by RefSeq, Nov 2015]

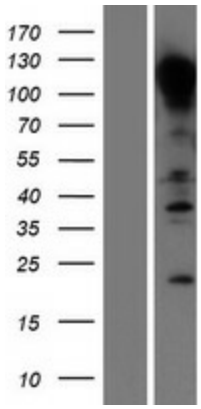
Product images:



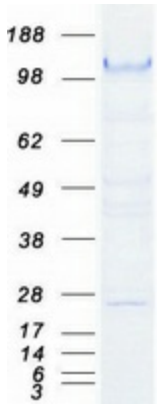
Circular map for RC220731



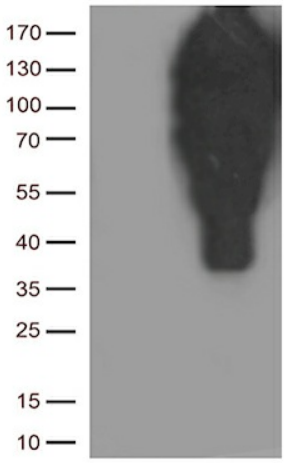
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDH1 (Cat# RC220731, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDH1 (Cat# [TA800691])(1:500).



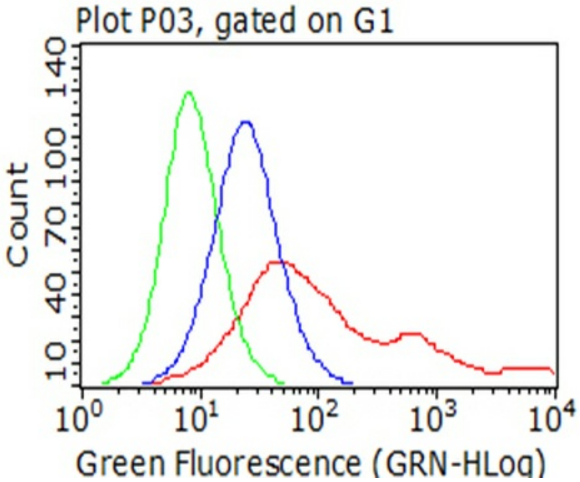
Western blot validation of overexpression lysate (Cat# [LY401389]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220731 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CDH1 protein (Cat# [TP320731]). The protein was produced from HEK293T cells transfected with CDH1 cDNA clone (Cat# RC220731) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CDH1 (RC220731, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDH1 (1:500).



Flow cytometric analysis of living 293T cells transfected with CDH1 overexpression plasmid (RC220731, Red)/empty vector ([PS100001], Blue) using anti-CDH1 antibody ([UM800076]). Cells incubated with a non-specific antibody (Green) were used as isotype control (1:100).