

Product datasheet for **RC207172**

Protocadherin beta 12 (PCDHB12) (NM_018932) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	Protocadherin beta 12
Synonyms:	PCDH-BETA12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >RC207172 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGAAACCGAGGGGACGGCACTCTGCAGATAAAGCAAGCTCTGCTTTCTTTCTTTGCTGCGGAATGCTCAGGCGGGGCTCTGAAACTGGGAACTTTTTGGTGATGGAGGAAATGCAGAGCGGGAGCTTTGTAGGAAATTTGGCAAAGACCTGGGACTCGAGGTGAGTGAGCTGTCTTCGCGGGGGGCTCGGGTGGTTTTCTAATGATAACAAAGAGTGTTTGCAGCTGGACACAACACTGGGGATTGCTCCTGAGAGAAATGCTAGACAGGGAGGAGCTCTGTGGCTCCAATAGGCTTGTGTGCTGTATTTCCAAGTGTTAATGAAAAACCCACGCAAGTTTTTACAAATTGAGCTCCAGGTGAGGATATAAATGATCACTCTCCCGCTCTTCTTGAAAAAGAAATGCTCTTAAAGAAATCCCGAGAGACAGTCTGTGGTGCTGTGTTCTTGCTTGAAAGTGCAAAAGGATTTAGATGTAGGAACTCAATGCTGTAAAAAGCTACACAATAATCCGAACCTCAATTTCCAGCTTAAAAAAGAGTCAATCCGACAATAGGAAATACCTCGAGTTAGTTAGTTCTGGACAAGGCGCTGGATTAGGAAGAGCGCCGGAGCTCAGTTTCAATCCTCACTGCTCTGGATGGCGGGTCCCCTCCCAGGTCTGGAACGCTTGGTCAGGGTGGTGGTTGTAGATATTAATGACAACTCCCCTGAGTTTGAGCAGGCTTTTTATGAGGTGAAGATTCTGGAGAATAGCATCCTTGGCTCCCTGGTTGTGACCGTCTCAGCCTGGGATTTAGACTCTGGAACAAACAGTGAACATCCTATACCTTTTCCCATGCCTCAGAAGATATTGCAAGACATTTGAAATTAATCAAAAGTCTGGTGACATTACTTTAACAGCACCTTTGGATTTTGAGCAATTGAGTCATACTCAATAATCATTCAAGCCACAGATGGGGGAGGACTTTTTGAAAAATCTACAGTCAGAATTACGGTGATGGATGTAACGACAACGCTCCTGAAATCACTGTGTCACTAATCCAGCTCAACATCCCAAGAAACACTCCAGAGACTTGGTTATGGTTTTACGAGTACGAGACAGACTCTGGGAGACACGGAAAGATGGTTTTGTTCTATCCCGGAGGACATCCCAATCGTGTAAATATCTCGGTAAATAATTTACTACACTTTGAAACACAGAGAGACCGCTGGACAGAGAGAGCAGAGCCGAGTACAACATCACCATCACCGTCACCGACTTGGGACCCCCAGGCTAAAAACCGAGCACAACATAACCGTGCTGGTCTCCGAGCTCAATGACAACGCCCCGCTTCACCCAAATCTCTACGCCCTGTTCTGTCGCGAGAACAAACAGCCCCGCCTGCACATCGGCAGCATCAGCGCCACAGACAGAGACTCGGGCACCACGCCAGGTCACTACTCGTGTCTGCCGTCCCAGGACCCGACCTGCCCTCGCCTCCCTGGTCTCCATCAACGCGGACAACGGCCACCTGTTGCCCTCAGGTCTGCTGGAAGTACGAGGCCCTGCAAGGGGTTCCAGTTCCGCGTGGGCGCCACAGACCAGGCTCCTCCCGGCTTTGAGCAGCGAGGCGCTGGTGCGCGTGCTGGTGTGGAGCGCCAAACGACAATCTGCCCTTCTGTCTGTACCCGCTCGAGAACGCTCGCGCCTGCAACGAGCTGGTCCCTGGCGGCGGACCGGGGCTACCTGGTGACCAAGTGTGGTGGCGGTGACGCGTGACTCGGGCGAGACGCGCTGCTGCTGTCTGACCAAGTGTCTCAAGGCCACGGAGCGCGGCTATTGCGCGTGTGGGCGCAATGGCGAGGTGCGCACCGCCGAGGCTGCTGAGCGAGCGCAGCGGCAAGCACAGGCTGGTGGTGCTGGTCAAGGACAATGGCGAGCCTCCGCGCTCGGCCACCGCCACGCTGCACGTGCTCCTGGTGAGCGGCTTCTCCAGCCCTACTGCCTCTCCGAGAGCGGCGCCGCGCCAGGCCAGGCGCACTCGCTCACTGTCTACCTGGTAGTGGCGTTGGCCTCAGTGTGTCGCTCTTCTCTCTCGGTGCTCCTGTTCTGTGGCGGTGCGGCTGTGCAAGGAGGAGCAGGGCGGCCCCGGTCTGGTGCTGCTCGGTGCTGAGGGCCCCCTTCCAGGACATCTGGTGGACGTGAGTGGCACCGGGACCTGTCCCAAGGCTACCACTATGAGGTGTGTGACTGGAGGCTCCAGGTCAAATAAGTTCAAATTTCTGAAACCAATATCCCAACTTCTCAACCCAGGACACAGGTAGTGAAGTCGAAGAAAAATCCCCATTTCAGAAATAATTTGGTTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207172 protein sequence
 Red=Cloning site Green=Tags(s)

MENGGAGTLQIRQVLLFFVLLGMSQAGSETGNFLVMEELQSGSFVGNLAKTLGLEVSELSSRGARVVSND
 NKECLQDNTNTGDLLLREMLDREELCGSNEPCVLYFQVLMKNPTQFLQIELQVRDINDHSPVFLEKEMLL
 EIPENSPVGAVLLES AKDL DVGINAVKSYTINPNSHFHV KIRVNP DN RKYPELVLDKALDYEERPELSF
 ILTALDGGSPPRSGTALVRVVVDINDNSPEFEQAFYEVKILENSILGSLVVTVSAWDLDSGTNSELSYT
 FSHASEDIRKTFEINQKSGDITLTAPLDFAIESYSII IQATDGGGLFGKSTVRIQVMDVNDNAPEITVS
 SITSPIENTPETVVMVFIRDRDSDGNGKMVCSIPEDIPFVLKSSVNYYTLETERPLDRESRAEYNIT
 ITVTDLGTPRLKTEHNITVLVSDVNDNAFTQT SYALFVRENNSPALHIGSISATDRDSGTNAQVNYSL
 LPSQDPHPLASLVSINADNGHLFALRSLDYEALQGFQFRVGATDHGSPALSSEALVRVLVDANDNSPF
 VLYPLQNGSAPCTELVPWAAEPGYLVTKVVAVDGDSGQNAWLSYQLLKATEPGLFGVWAHNGEVRTARLL
 SERDAAKHRLVVLVKDNGEPPRSATATLHVLLVDGFSQPYLPLPEAAPAQADSLTVYLVVALASVSSL
 FLFSVLLFVAVRLCRRSRAAPVGRCSVPEGPFPGHLVDVSGTGTL SQSYHYEVCVTGGSRSNKFKFLKPI
 IPNFLPQSTGSEVEENPPFQNNLGF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6694_h12.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_018932

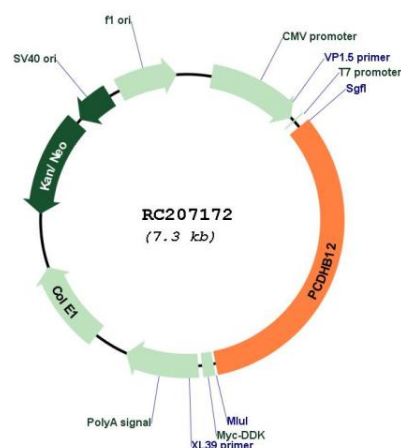
ORF Size: 2385 bp

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](#)

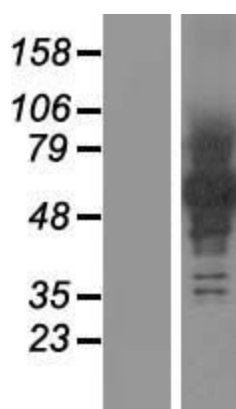
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_018932.4
RefSeq Size:	3422 bp
RefSeq ORF:	2388 bp
Locus ID:	56124
UniProt ID:	Q9Y5F1
Cytogenetics:	5q31.3
Protein Families:	Transmembrane
MW:	86.8 kDa
Gene Summary:	This gene is a member of the protocadherin beta gene cluster, one of three related gene clusters tandemly linked on chromosome five. The gene clusters demonstrate an unusual genomic organization similar to that of B-cell and T-cell receptor gene clusters. The beta cluster contains 16 genes and 3 pseudogenes, each encoding 6 extracellular cadherin domains and a cytoplasmic tail that deviates from others in the cadherin superfamily. The extracellular domains interact in a homophilic manner to specify differential cell-cell connections. Unlike the alpha and gamma clusters, the transcripts from these genes are made up of only one large exon, not sharing common 3' exons as expected. These neural cadherin-like cell adhesion proteins are integral plasma membrane proteins. Their specific functions are unknown but they most likely play a critical role in the establishment and function of specific cell-cell neural connections. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207172



Western blot validation of overexpression lysate (Cat# [LY412944]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207172 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).