

Product datasheet for **RG230644**

Cadherin like 23 (CDH23) (NM_001171934) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cadherin like 23 (CDH23) (NM_001171934) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDH23
Synonyms:	CDHR23; PITA5; USH1D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG230644 representing NM_001171934 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGAAGTCCCCATGAATCGGGAGCTGGTTGCCACCTATGAGGTCCTCTCAGTGATTGACAATG
CCAGCGACCTACCAGAGCGCTCTGTGAGTGTGCCAAATGCCAAGCTGACTGTCAACGTCTGGACGTCAA
TGACAATACGCCCGAGTCAAGCCCTTTGGGATCACCTACTACATGGAGCGGATCCTGGAGGGGGCCACC
CCTGGGACCACACTCATTGCTGTGGCAGCCGTGGACCTGACAAGGGCCTTAATGGGCTGGTCACTACA
CCCTGCTGGACCTGGTGGCCCCAGGGTATGTCCAGCTGGAGGACTCCTCGGCAGGGAAGGTCAATGCCAA
CCGGACAGTGGACTACGAGGAGGTGCACTGGCTCAACTTTACCGTGAGGGCCTCAGACAACGGGTCCCCG
CCCCGGGCAGCTGAGATCCCTGTCTACCTGGAAATCGTGGACATCAATGACAACAACCCCATCTTTGACC
AGCCCTCTACCAGGAGGCTGTCTTTGAGGATGTGCCTGTGGGCACAATCATCCTGACAGTCACTGCCAC
TGATGCTGACTCAGGCAACTTTGCACTCATTGAGTACAGCCTTGGAGATGGAGAGAGCAAGTTTGGCATC
AACCCACCGGGTGACATCTATGTGCTGTCTTCTGACCAGGGGAGAGAAAGGACCACTATATCTGA
CTGCCTTGGCCAAAGACAACCCCTGGGGATGTAGCCAGCAACCGTCGCGAAAATTCAGTGCAGGTGGTATG
CAAAGTGTGGATGTCAATGACTGCCGGCCACAGTTCTCCAAGCCCAGTTCAGCACAAGCGTGTATGAG
AATGAGCCGGCGGGCACCTCGGTATCACCATGATGGCCACTGACCAGGATGAAGTCCCAATGGAGAGT
TGACCTACTCACTTGAAGGCCCTGGCGTGGAGGCCTTCCATGTGGACATGGACTCGGGCTTGGTGACCAC
ACAGCGGCCACTGCAGTCTACGAGAAGTTCAGTCTGACCGTGGTGGCCACAGATGGTGGAGAGCCCCCA
CTCTGGGGCACCACCATGCTCCTGGTGGAGGTCATCGACGTCAATGACAACCGCCCTGTCTTTGTGCGCC
CACCCAACGGCACCATCTCCACATCAGAGAGGAGATCCCGCTGCGCTCCAACGTGTACGAGGTCTACGC
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AGGCGGTGTACAGCCTCATCTTGGTGGCCAGCGACCTGGGCCAGCCAGTCCATACGAGACTATGCAGCC
GCTGCAGGTGGCCCTGGAGGACATCGATGACAACGAACCCCTTTTCGTGAGGCCTCCAAAAGGCAGCCCC



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CAGTACCAGCTGCTGACAGTGCCTGAGCACTCACCACGCGGCACCCTCGTGGGCAACGTGACAGGCGCAG
 TGGATGCAGATGAGGGCCCCAACGCGATCGTGTACTACTTCATCGCAGCCGGCAACGAAGAGAAGAACTT
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 CCAGGAGACCACAGCCCAGGGCAGGTAGCTGCGCTTCCGCCACAAGCCACCAGTGGAGCTCAAGGGCC
 CCGATGGGATCCATGTGGTGCACGGCAGCAGGGCAGCTGCTGGCCACCGACCTCAACAGCCTGCCCGA
 GGAAGACCAGAAGGGCCCTGGGCCGCTCGCTGGAGACGCTGACCGCTGCCGAGGCCACTGCCTTCGAGCGC
 AACGCCCGCACAGAATCCGCCAAATCCACACCCCTGCACAAACTTCGCGACGTGATCATGGAGACCCCC
 TGGAGATCACAGAGCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230644 representing NM_001171934

Red=Cloning site Green=Tags(s)

MVKSPMNREL VATYEVTL SVIDNASDL PERSVSPNAKL TVNVLDVNDTPQFKPFGITYYMERILEGAT
 PGTTLI IAVAAVDPDKL NGLVTYLLDL VPPGYVQLEDSSAGKVI ANRTVDYEEVHWNFTVRASDNGSP
 PRAAEIPVYLEIVDINDNPIFDQPSYQEA VFEDVPVGTI IILTVTADADSGNFALIEYSLGDGESKFAI
 NPTTGDIIYVLSLDREKKDHYILTALAKDNPGDVASNRRENSVQVVIQVLDVND CRPQFSKPFSTSVYE
 NEPAGTSVITMMATDQDEGPNGELTYSLEGPVGEAFHVDMSGLVTTQRPLQSYEKFSLTVVATDGGEP
 LWGTTMLLVEVIDVNDNRPFVVRPPNGTILHIREEIPLRSNVYEVYATDKDEGLNGAVRYSFLKTAGNRD
 WEFFIIDPISGLIQTAQRDRESQAVYSLILVASDLGQVPVYETMQPLQVALEDIDDNEPLFVRPPKGS
 QYQLLTVPEHSPRGTLVGNVTGAVDADEGPNAIIVYYFIAAGNEEKNFHLQPDGCLLVLRDLDRERAI
 FSVIVKASSNRSWTPPRGPSPTLDLVADLTQEVVVLEDINDQPPRFTKAEYTAGVATDAKVGSELIQVLA
 LDADIGNNSLVFYSILAIHYFRALANDESDVGQVFTMGSMGILRTFDLFMAYSPGYFVVDIVARDLAGH
 NDTAIIIGIYILRDDQRVKIVINEIPDRVRGFEFEFIHLLSNITGAI VNTDNVQFHVDKGRVNF AQTELL
 IHVVNRD TNRI LDVDRVIQ MIDENKEQLRNLFRNYNVLDVQPAISVRLPDDMSALQMAII VLA ILLFLAA
 MLFVLMNYYRTVHKRKLKAI VAGSAGNRGFI DIMPNTNKYSFDGANPVWLD PFCRNLELAAQAEHED
 DLPENLSEIADLWNSPTRTHGTFGREPAAVKPD DRYLRAAIQEYDNI AKLGQI IREGPIKLIQTELDEE
 PGDHS PGQSLFRHKPPVELKGPDIHVHVGSTGTL LATDLNSLPEEDQKGLGRSLET LTAAEATAFER
 NARTESAKSTPLHKL RDVIMETPLEITEL

TRTRPLE – GFP Tag – V

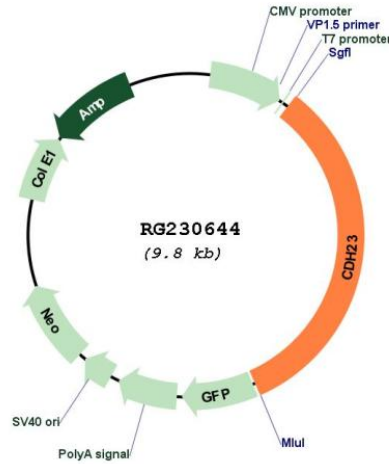
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001171934

ORF Size: 3237 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:	<ol style="list-style-type: none">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.
RefSeq:	<u>NM_001171934.1, NP_001165405.1</u>
RefSeq Size:	4236 bp
RefSeq ORF:	3240 bp
Locus ID:	64072
UniProt ID:	<u>Q9H251</u>
Cytogenetics:	10q22.1
Protein Families:	Transmembrane
Gene Summary:	This gene is a member of the cadherin superfamily, whose genes encode calcium dependent cell-cell adhesion glycoproteins. The encoded protein is thought to be involved in stereocilia organization and hair bundle formation. The gene is located in a region containing the human deafness loci DFNB12 and USH1D. Usher syndrome 1D and nonsyndromic autosomal recessive deafness DFNB12 are caused by allelic mutations of this cadherin-like gene. Upregulation of this gene may also be associated with breast cancer. Alternative splice variants encoding different isoforms have been described. [provided by RefSeq, May 2013]