OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC218556

PDZD6 (INTU) (NM_015693) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDZD6 (INTU) (NM_015693) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDZD6
Synonyms:	CPLANE4; INT; OFD17; PDZD6; PDZK6; SRTD20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC218556 representing NM_015693
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTCTGTGGCTTCGTGCGATTCGCGTCCGAGCTCAGACGAGCTCCCTGGAGACCCCTCTTCACAAG
AAGAAGATGAGGACTATGATTTTGAAGATCGGGTCAGCGACTCGGGTTCATATTCCTCAGCGAGTAGCGA
TTATGATGATCTTGAGCCTGAATGGCTGGACAGTGTGCAGAAAAATGGAGAGCTGTTTTATTTGGAATTG
AGTGAGGATGAAGAAGAAAGCCTCCTTCCTGAGACACCAACTGTGAACCATGTCAGGTTCAGTGAAAATG
AGATTATCATTGAAGATGACTACAAAGAAAGAAAAAAGTATGAACCCAAACTCAAGCAGTTTACCAAAAT
TTTAAGAAGGAAAAGACTTTTACCCAAGCGCTGCAATAAAAAAAATAGCAATGACAATGGACCAGTATCC
ATTCTAAAGCATCAGTCCAATCAGAAGACAGGAGTCATTGTCCAACAGCGATACAAAGATGTGAATGTTT
ATGTAAACCCCAAAAAGCTAACTGTTATCAAAGCCAAAGAGCAGCTCAAGCTTCTGGAAGTGCTGGTTGG
AATTATTCATCAGACCAAGTGGAGCTGGAGAAGAACCGGAAAGCAGGGTGATGGAGAGAGGCTTGTGGTT
CATGGCCTGCTGCCAGGGGGATCTGCTATGAAGAGCGGTCAGGTACTCATTGGTGATGTCCTTGTTGCTG
TGAATGATGTCGATGTTACTACTGAAAACATCGAGAGAGTTCTGTCTTGCATTCCTGGACCTATGCAGGT
GAAACTGACATTTGAAAATGCATATGATGTGAAAAGGGAGACGTCCCATCCAAGACAGAAAAAGACACAG
TCCAACACAAGTGATTTAGTCAAGCTTCTCTGGGGAGAAGAGGTTGAAGGTATCCAGCAGAGTGGCCTAA
ACACTCCTCATATCATTATGTATCTCACACTACAGCTCGACTCAGAAACCTCAAAGGAAGAGCAGGAAAT
TCTTTATCATTATCCAATGTCTGAAGCATCTCAGAAACTTAAAAGTGTGAGAGGGATTTTTCTCACACTC
TGTGACATGCTGGAAAACGTAACTGGGACACAAGTTACTAGTTCATCCCTCCTTTTAAATGGAAAACAAA
TTCATGTGGCTTATTGGAAAGAATCTGACAAGTTGTTGCTAATTGGCCTGCCTGCTGAAGAAGTTCCTCT
TCCTCGTCTAAGGAACATGATAGAAAATGTCATCCAAACCTTAAAATTTATGTATGGTTCTTTAGATAGT
GCCTTTTGCCAGATTGAGAATGTTCCTCGTTTGGATCATTTTTTTAACTTGTTCTTTCAAAGAGCACTTC
AGCCTGCGAAACTGCATTCCAGCGCCAGTCCCAGTGCTCAGCAGTACGATGCTTCCAGTGCAGTACTTTT
AGACAACCTCCCTGGAGTCCGGTGGCTCACACTTCCACTGGAAATCAAGATGGAATTAGACATGGCATTA
AGTGACTTGGAGGCTGCAGATTTTGCAGAACTGTCCGAGGATTACTATGACATGAGGCGGCTGTATACAA
TTTTGGGGTCTTCTCTATTTTACAAGGGTTATTTGATATGCAGTCATTTGCCCAAGGATGATCTTATTGA
TATTGCCGTATACTGTCGCCACTATTGCCTGCTGCCTTTAGCAGCAAAACAAAGAATTGGTCAGTTGATC
ATATGGAGAGAAGTGTTTCCTCAGCATCACCTCCGACCTTTGGCAGACTCAAGCACTGAAGTCTTTCCGG
AACCTGAAGGAAGATATTTTTTGCTAGTTGTTGGCTTGAAACATTATATGCTATGTGTACTATTAGAAGC
TGGAGGTTGCGCATCCAAAGCTATTGGGAGTCCTGGACCAGACTGTGTATATGTGGATCAAGTCAAAACA
ACTCTTCACCAGCTGGATGGAGTAGATTCTCGCATAGATGAACGGCTAGCATCTTCTCCAGTCCCCTGTT
TGTCTTGTGCTGACTGGTTCCTTACTGGATCACGTGAAAAAACAGATAGCTTGACCACTTCGCCTATTCT
CAGTAGGCTACAAGGTACTTCCAAAGTAGCAACTTCTCCAACATGCAGAAGAACGCTTTTTGGTGACTAT
TCCTTAAAGACACGCAAGCCTAGTCCTTCCTGTAGTAGTGGAGGATCTGACAATGGTTGTGAAGGTGGAG
AAGATGATGGCTTTAGCCCCCATACTACACCGGATGCAGTACGGAAGCAAAGAGAATCTCAGGGCTCTGA
TGGTTTAGAAGAAAGTGGGACCTTGCTTAAGGTCACTAAAAAGAAGTCTACTCTTCCAAATCCATTTCAT
TTGGGAAACTTGAAAAAGGACCTTCCAGAAAAAGAATTAGAAATATATAACACAGTGAAACTGACATCTG
GTCCTGAGAACACACTTTTCCACTACGTTGCCTTAGAAACAGTGCAAGGAATCTTTATTACTCCTACCCT
TGAAGAGGTGGCACAGCTAAGTGGCTCTATCCACCCTCAGCTAATAAAGAATTTCCATCAGTGTTGTCTT
TCCATTCGTGCAGTTTTCCAACAGACATTGGTGGAAGAGAAAAAGAAAGGACTAAATAGTGGAGACCATT
CAGATTCTGCAAAGTCAGTGTCTTCTCTTAACCCTGTTAAAGAACATGGTGTGTTGTTTGAATGTTCACC
TGGAAACTGGACTGATCAGAAAAAAGCACCACCAGTTATGGCTTACTGGGTAGTAGGGAGACTTTTTCTT
CATCCAAAACCTCAAGAACTTTATGTCTGTTTTCATGACTCAGTCACAGAAATTGCCATTGAAATAGCTT
TTAAATTGTTCTTTGGGTTAACCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218556 representing NM_015693
Red=Cloning site Green=Tags(s)

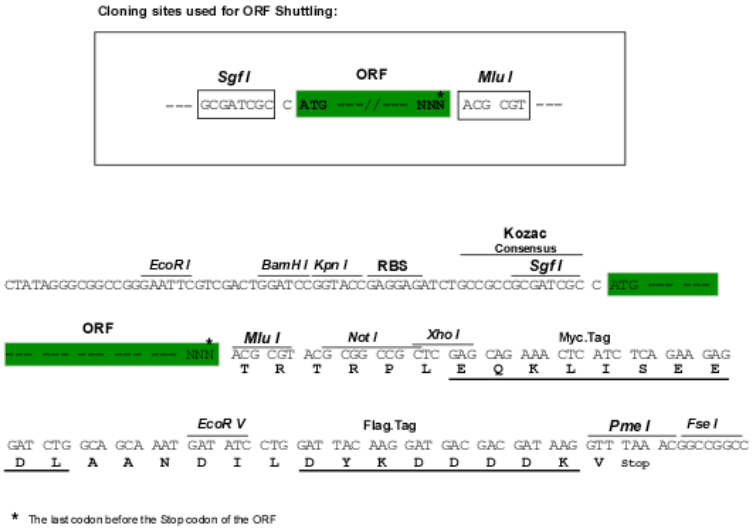
MASVASCDSRPSSDELPGDPSSQEEDEDYDFEDRVSDSGSYSSASSDYDDLEPEWLDSVQKNGELFYLEL
SEDEEESLLPETPTVNHVRFSENEIIIEDDYKERKKYEPKLKQFTKILRRKRLLPKRCNKKNSNDNGPVS
ILKHQSNQKTGVIVQQRYKDVNVYVNPKKLTVIKAKEQLKLLEVLVGIIHQTKWSWRRTGKQGDGERLVV
HGLLPGGSAMKSGQVLIGDVLVAVNDVDVTTENIERVLSCIPGPMQVKLTFENAYDVKRETSHPRQKKTQ
SNTSDLVKLLWGEEVEGIQQSGLNTPHIIMYLTLQLDSETSKEEQEILYHYPMSEASQKLKSVRGIFLTL
CDMLENVTGTQVTSSSLLLNGKQIHVAYWKESDKLLLIGLPAEEVPLPRLRNMIENVIQTLKFMYGSLDS
AFCQIENVPRLDHFFNLFFQRALQPAKLHSSASPSAQQYDASSAVLLDNLPGVRWLTLPLEIKMELDMAL
SDLEAADFAELSEDYYDMRRLYTILGSSLFYKGYLICSHLPKDDLIDIAVYCRHYCLLPLAAKQRIGQLI
IWREVFPQHHLRPLADSSTEVFPEPEGRYFLLVVGLKHYMLCVLLEAGGCASKAIGSPGPDCVYVDQVKT
TLHQLDGVDSRIDERLASSPVPCLSCADWFLTGSREKTDSLTTSPILSRLQGTSKVATSPTCRRTLFGDY
SLKTRKPSPSCSSGGSDNGCEGGEDDGFSPHTTPDAVRKQRESQGSDGLEESGTLLKVTKKKSTLPNPFH
LGNLKKDLPEKELEIYNTVKLTSGPENTLFHYVALETVQGIFITPTLEEVAQLSGSIHPQLIKNFHQCCL
SIRAVFQQTLVEEKKKGLNSGDHSDSAKSVSSLNPVKEHGVLFECSPGNWTDQKKAPPVMAYWVVGRLFL
HPKPQELYVCFHDSVTEIAIEIAFKLFFGLTL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8021_f04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

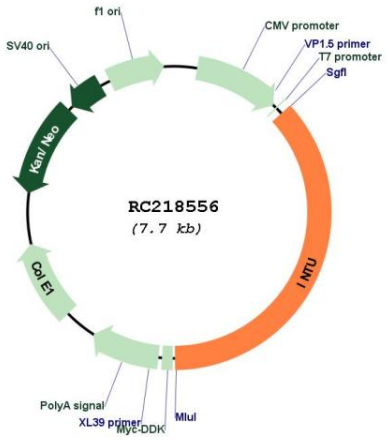


ACCN: NM_015693

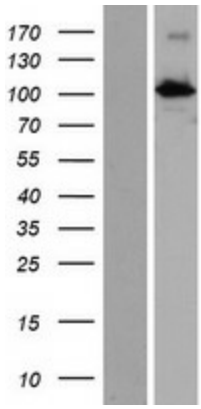
ORF Size: 2826 bp

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_015693.4
RefSeq Size:	3238 bp
RefSeq ORF:	2829 bp
Locus ID:	27152
UniProt ID:	Q9ULD6
Cytogenetics:	4q28.1
MW:	105.5 kDa
Gene Summary:	Plays a key role in ciliogenesis and embryonic development. Regulator of cilia formation by controlling the organization of the apical actin cytoskeleton and the positioning of the basal bodies at the apical cell surface, which in turn is essential for the normal orientation of elongating ciliary microtubules. Plays a key role in definition of cell polarity via its role in ciliogenesis but not via conversion extension. Has an indirect effect on hedgehog signaling (By similarity). Proposed to function as core component of the CPLANE (ciliogenesis and planar polarity effectors) complex involved in the recruitment of peripheral IFT-A proteins to basal bodies (PubMed:27158779).[UniProtKB/Swiss-Prot Function]

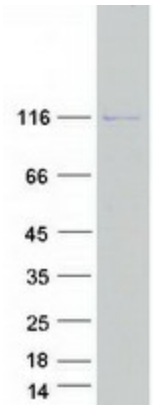
Product images:



Circular map for RC218556



Western blot validation of overexpression lysate (Cat# [LY414387]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218556 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified INTU protein (Cat# [TP318556]). The protein was produced from HEK293T cells transfected with INTU cDNA clone (Cat# RC218556) using MegaTran 2.0 (Cat# [TT210002]).