

Product datasheet for RC202545

CPLANE2 (NM_030907) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CPLANE2 (NM_030907) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CPLANE2
Synonyms:	C1orf89; RSG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202545 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGC**

ATGGCCAGACCTCCCGTGCCCGGTTGCGGTGGTTGTCCCAAACCTGGCACGAGAGTGCCGAGGGCAAGGAGT
ACCTGGCTTGCAATTCTGCGCAAGAACCAGCGCGGGTGTGGGCTGCTTGAGCGCCAGTGCTGCTGCC
GCCTGTGTCCATTGACTGCTGCACTACAAGATCTTTGTGTCCGGAAGAGTGGTGTGGCAAGACGGCG
CTGGTGGCCAAGCTGGCTGGCCTGGAGGTGCTGTGGTGCACCACGGGACCACCGGCATCCAGACCACCG
TGTTATTTGGCCAGCCAAGCTGCAGGCCAGCAGCCGTGTCGTCATGTTTCGTTTGGAGTTCTGGGACTG
TGGAGAGTCTGCACTCAAAAAGTTCGATCATATGCTGCTGGCTTGCATGGAGAACACAGATGCCTTCCTC
TTCTCTCTCCTTCACTGACCGTGCCTCCTTTGAAGACCTCCCTGGACAGCTGGCCCGCATAGCAGGTG
AGGCCCTGGTGTGTCAGGATGGTTCATCGGCTCCAAATTTGACCAGTACATGCACACGGAGCTGCCCGA
GCGGGACCTCACAGCCTTCCGGCAGGCTGGGAGCTGCCCTGCTACGGGTGAAGAGTGTGCCGGGGCGG
CGGCTGGCTGATGGGCGCACACTGGACGGGCGGGCTGGCTGGCCGACGTTGCCACATACTCAATGGCC
TTGCTGAGCAGCTGTGGCACCAGGACAGGTGGCGGCTGGCTGCTTCCCAACCCCCAGAGAGTGCTCC
TGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202545 protein sequence
 Red=Cloning site Green=Tags(s)

MARPPVPGSVVVPNWHESAEGKEYLACILRKNRRRVFGLLERPVLLPPVSIDTASYKIFVSGKSGVGKTA
 LVAKLAGLEVPPVHHGTTGIQTTVVFWPAKLQASSRVVMFRFEWDCGESALKKFDHMLLACMENTDAFL
 FLFSFTDRASFEDLPGQLARIAGEAPGVVVMVIGSKFDQYMHTDVERDLTAFRQAWELPLLRVKSVPGR
 RLADGRTL DGRAGLADVAHILNGLAEQLWHQDQVAAGLLPNPPESAPE

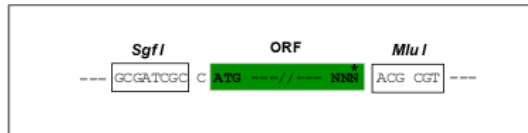
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6627_c04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_030907

ORF Size: 774 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.

RefSeq: [NM_030907.2](#), [NP_112169.1](#)

RefSeq Size: 1582 bp

RefSeq ORF: 777 bp

Locus ID: 79363

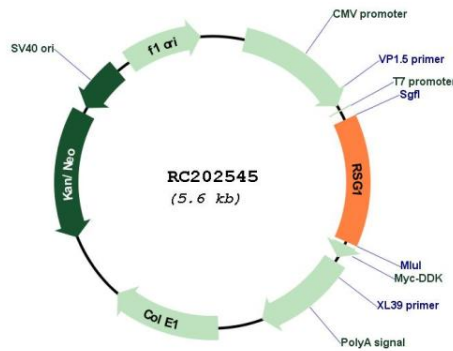
UniProt ID: [Q9BU20](#)

Cytogenetics: 1p36.13

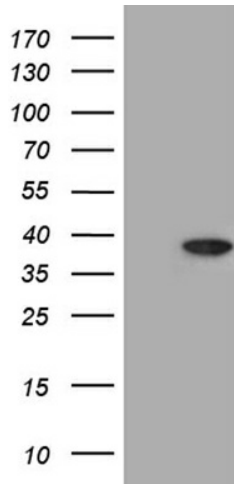
MW: 28.4 kDa

Gene Summary: Potential effector of the planar cell polarity signaling pathway. Plays a role in targeted membrane trafficking most probably at the level of vesicle fusion with membranes. Involved in cilium biogenesis by regulating the transport of cargo proteins to the basal body and to the apical tips of cilia. More generally involved in exocytosis in secretory cells (By similarity). [UniProtKB/Swiss-Prot Function]

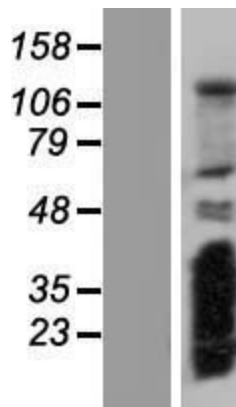
Product images:



Circular map for RC202545



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RSG1 (Cat# RC202545, 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-RSG1 (Cat# [TA810727])(1:500). Positive lysates [LY410666] (100ug) and [LC410666] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410666]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202545 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).