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 RC217980

Cytohesin 2 (CYTH2) (NM_017457) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytohesin 2 (CYTH2) (NM_017457) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytohesin 2
Synonyms:	ARNO; CTS18; CTS18.1; cytohesin-2; PSCD2; PSCD2L; SEC7L; Sec7p-L; Sec7p-like
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC217980 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGACGGCGTCTATGAACCCCCAGACCTGACTCCGGAGGAGCGGATGGAGCTGGAGAACATCCGGC
GGCGGAAGCAGGAGCTGCTGGTGGAGATTCAGCGCCTGCGGGAGGAGCTCAGTGAAGCCATGAGCGAGGT
GGAGGGGCTGGAGGCCAATGAGGGCAGTAAGACCTTGCAACGGAACCGGAAGATGGCAATGGGCAGGAAG
AAGTTCAACATGGACCCCAAGAAGGGGATCCAGTTCTTGGTGGAGAATGAACTGCTGCAGAACACACCCG
AGGAGATCGCCCGCTTCCTGTACAAGGGCGAGGGGCTGAACAAGACAGCCATCGGGGACTACCTGGGGGA
GAGGGAAGAACTGAACCTGGCAGTGCTCCATGCTTTTGTGGATCTGCATGAGTTCACCGACCTCAATCTG
GTGCAGGCCCTCAGGCAGTTTCTATGGAGCTTTCGCCTACCCGGAGAGGCCCAGAAAATTGACCGGATGA
TGGAGGCCTTCGCCCAGCGATACTGCCTGTGCAACCCTGGGGTTTTCCAGTCCACAGACACGTGCTATGT
GCTGTCCTTCGCCGTCATCATGCTCAACACCAGTCTCCACAATCCCAATGTCCGGGACAAGCCGGGCCTG
GAGCGCTTTGTGGCCATGAACCGGGGCATCAACGAGGGCGGGGACCTGCCTGAGGAGCTGCTCAGGAACC
TGTACGACAGCATCCGAAATGAGCCCTTCAAGATTCCTGAGGATGACGGGAATGACCTGACCCACACCTT
CTTCAACCCGGACCGGGAGGGCTGGCTCCTGAAGCTGGGAGGGGGCCGGGTGAAGACGTGGAAGCGGCGC
TGGTTTATCCTCACAGACAACTGCCTCTACTACTTTGAGTACACCACGGACAAGGAGCCCCGAGGAATCA
TCCCCCAGGAGAATCTGAGCATCCGAGAGGTGGACGACCCCCGGAAACCGAACTGCTTTGAACTTTACAT
CCCCAACAACAAGGGGCAGCTCATCAAAGCCTGCAAAACTGAGGCGGACGGCCGAGTGGTGGAGGGAAAC
CACATGGTGTACCGGATCTCGGCCCCCACGCAGGAGGAGAAGGACGAGTGGATCAAGTCCATCCAGGCGG
CTGTGAGTGTGGACCCCTTCTATGAGATGCTGGCAGCGAGAAAGAAGCGGATTTCAGTCAAGAAGAAGCA
GGAGCAGCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC217980 protein sequence
Red=Cloning site Green=Tags(s)

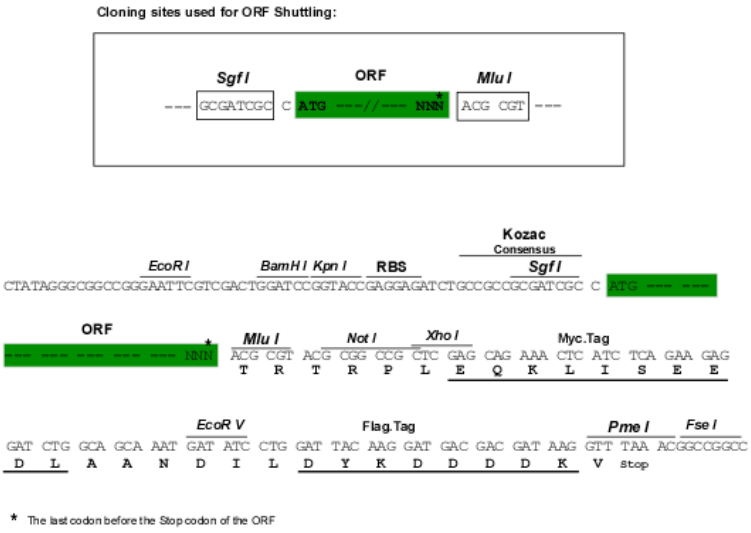
MEDGVYEPPDLTPEERMELENIRRRKQELLVEIQRLREELSEAMSEVEGLEANEGSKTLQRNRKMAMGRK
KFNMDPKKGIQFLVENELLQNTPEEIARFLYKGEGLNKTAIGDYLGEREELNLAVLHAFVDLHEFTDLNL
VQALRQFLWSFRLPGEAQKIDRMMEAFAQRYCLCNPGVFQSTDTCYVLSFAVIMLNTSLHNPNVRDKPGL
ERFVAMNRGINEGGDLPEELLRNLYDSIRNEPFKIPEDDGNDLTHTFFNPDREGWLLKLGGGRVKTWKRR
WFILTDNCLYYFEYTTDKEPRGIIPQENLSIREVDDPRKPNCFELYIPNNKGQLIKACKTEADGRVVEGN
HMVYRISAPTQEEKDEWIKSIQAAVSVDPFYEMLAARKKRISVKKKQEQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6339_b02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017457

ORF Size: 1200 bp

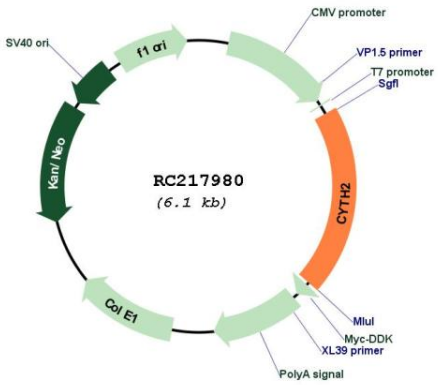
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

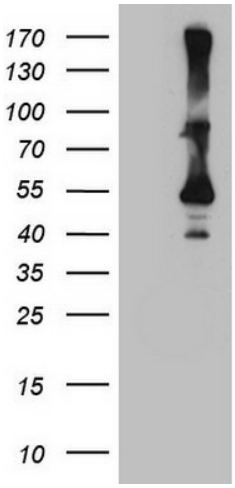
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_017457.5
RefSeq Size:	4625 bp
RefSeq ORF:	1203 bp
Locus ID:	9266
UniProt ID:	Q99418
Cytogenetics:	19q13.33
Domains:	Sec7, PH
Protein Families:	Druggable Genome
MW:	46.6 kDa
Gene Summary:	The protein encoded by this gene is a member of the PSCD family. Members of this family have identical structural organization that consists of an N-terminal coiled-coil motif, a central Sec7 domain, and a C-terminal pleckstrin homology (PH) domain. The coiled-coil motif is involved in homodimerization, the Sec7 domain contains guanine-nucleotide exchange protein (GEP) activity, and the PH domain interacts with phospholipids and is responsible for association of PSCDs with membranes. Members of this family appear to mediate the regulation of protein sorting and membrane trafficking. The encoded protein exhibits GEP activity in vitro with ARF1, ARF3, and ARF6 and is 83% homologous to CYTH1. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008]

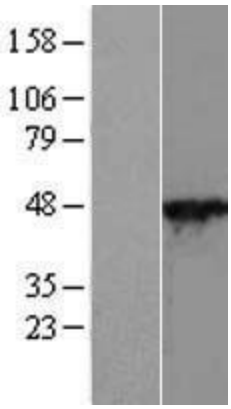
Product images:



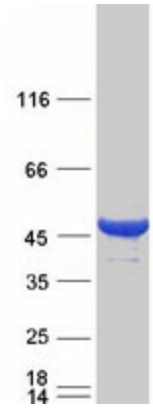
Circular map for RC217980



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CYTH2 (Cat# RC217980, 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-CYTH2 (Cat# [TA809012])(1:2000). Positive lysates [LY413761] (100ug) and [LC413761] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413761]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217980 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CYTH2 protein (Cat# [TP317980]). The protein was produced from HEK293T cells transfected with CYTH2 cDNA clone (Cat# RC217980) using MegaTran 2.0 (Cat# [TT210002]).