

Product datasheet for **RC201725**

HYPE (FICD) (NM_007076) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HYPE (FICD) (NM_007076) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FICD
Synonyms:	HIP13; HYPE; UNQ3041
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC201725 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGATGCTCATACCAATGGCTTCAGTGATGGCGGTGACTGAACCGAAATGGTCTCGGTCTGGAGCCGCT
 TCCTCTGGGTGACGCTGCTGAGCATGGTCTGGGTCCCTGCTGGCCCTGCTGCTGCCGCTGGGGCTGT
 GGAGGAGCAGTGCTTGGCTGTGCTCAAAGGCCTCTACCTGCTCAGGAGCAAACCGGACAGGGCGCAGCAT
 GCCGCCACCAAGTGCACCAGCCCGTCCACGGAGCTCAGCATCACCTCCAGGGGCGCGACGCTGCTGGTGG
 CCAAGACCAAGGCCTCTCCAGCGGGTAAGTTGGAAGCCAGAGTGCCTGAACAGGCCCTGGAGATGAA
 GCGCCAGGGCAAGCGGAAAAAGCCAAAAGCTTTCATGCACGCCCTCAAGATGGACCCGGACTTCGTG
 GACGCGCTCACCGAGTTTGGCATCTTCTCGAAGAAGACAAGGACATCATCCAGGCGGACTACTTGTACA
 CCAGAGCATTGACCATCTCACCTACCATGAGAAAGCACTGGTCAACCGCATCGGACACTGCCTCTTGT
 GGAAGAGATCGACCAGAGGTATTTAGCATCATCGACAGCAAAGTGAAGAAGGTCATGTCCATCCCAAG
 GGGAACTCAGCTCTGCGCAGGGTCATGGAGGAGACCTACTACCATCACATCTACCACACAGTGGCCATCG
 AGGGCAACACCCTCACCTCTCGAAATCAGGCACATCCTGGAGACCCGCTACGCCGTGCCCGGGAAGAG
 CCTGGAGGAGCAGAACGAGGTATAGGCATGCATGCAGCCATGAAGTACATCAACACGACTCTGGTTTCG
 CGCATCGGCTCCGTACCATCAGCGACGTGCTGGAGATCCACAGGCGGGTCTGGGCTACGTGGACCCCG
 TGGAAAGCCGGCAGGTTTCGGACAACACAGGTCTGGTCCGACACCACATCCCTCCCATCCCGAGGATGT
 GGAAAAGCAGATGCAGGAGTTTGTACAGTGGCTCAACTCCGAGGAAGCCATGAACCTGCACCCAGTGGAG
 TTTGCAGCCTTAGCCATTATAAACTCGTTTACATCCACCCTTTCATTGATGGCAACGGGAGGACCTCCC
 GTCTGCTCATGAACCTCATCCTCATGCAGGCGGGCTACCCGCCATCACCATCCGCAAGGAGCAGCGGTC
 CGACTACTACCAGTGTGGAAAGCTGCCAACGAGGGCGACGTGAGGCCTTTCATTGCTTCATCGCCAAG
 TGTACTGAGACCCTGGACACCCTGCTTTTGGCCAACTGAGTACTCGGTGGCACTGCCAGAAGCCC
 AACCCAACCACTCTGGTTCAGGAGACGCTTCTGTGAAGCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201725 protein sequence
 Red=Cloning site Green=Tags(s)

MMLIPMASVMVTEPKWVSVWSRFLWVTLSSMVLGSLALLLPLGAVEEQCLAVLKGLYLLRSKPDRAQH
 AATKCTSPSTELITSRGATLLVAKTKASPAGKLEARAALNQALEMKRQKREKAQKLFMHALKMDPDFV
 DALTEFGIFSEEDKDIIQADLYTRALISPYHEKALVNRDRTLPLVEEIDQRYFSIIDSQVKKVMSIPK
 GNSALRRVMEETYYHHIYHTVAIEGNTLTLSEIRHILETRYAVPGKSLEEQNEVIGMHAAMKYINTTLVS
 RIGSVTISDVLEIHRRLVGYVDPVEAGRFRTTQVLVGHHPHPQDVEKQMQEFVQWLNSEAMNLHPVE
 FAALAHYKLVYIHPFIDGNGRTSRLLMNLILMQAGYPPITIRKEQRSDYHYVLEAANEGDVRPFIRFIAK
 CTETTLDTLLFATTEYSVALPEAQPNSHSGFKETLPVKP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6301_a10.zip

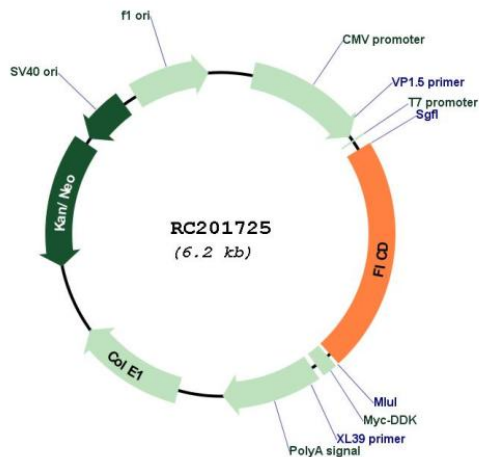
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM_007076

ORF Size: 1374 bp

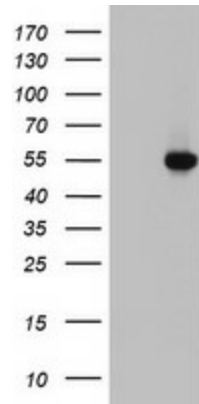
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

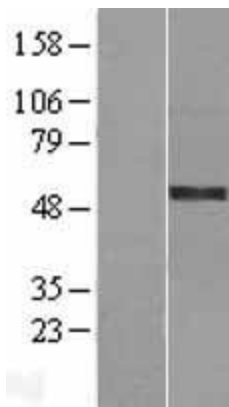
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	NM_007076.3
RefSeq Size:	1651 bp
RefSeq ORF:	1377 bp
Locus ID:	11153
UniProt ID:	Q9BVA6
Cytogenetics:	12q23.3
Protein Families:	Transmembrane
MW:	51.8 kDa
Gene Summary:	<p>Protein that can both mediate the addition of adenosine 5'-monophosphate (AMP) to specific residues of target proteins (AMPylation), and the removal of the same modification from target proteins (de-AMPylation), depending on the context (By similarity). The side chain of Glu-231 determines which of the two opposing activities (AMPylase or de-AMPylase) will take place (By similarity). Acts as a key regulator of the ERN1/IRE1-mediated unfolded protein response (UPR) by mediating AMPylation or de-AMPylation of HSPA5/BiP (PubMed:25601083). In unstressed cells, acts as an adenylyltransferase by mediating AMPylation of HSPA5/BiP at 'Thr-518', thereby inactivating it (By similarity). In response to endoplasmic reticulum stress, acts as a phosphodiesterase by mediating removal of ATP (de-AMPylation) from HSPA5/BiP at 'Thr-518', leading to restore HSPA5/BiP activity (By similarity). Although it is able to AMPylate RhoA, Rac and Cdc42 Rho GTPases in vitro, Rho GTPases do not constitute physiological substrates (PubMed:19362538, PubMed:25601083).[UniProtKB/Swiss-Prot Function]</p>

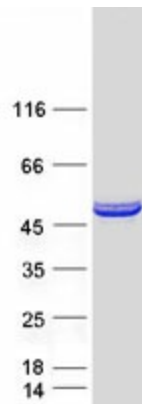
Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FICD (Cat# RC201725, 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-FICD (Cat# [TA802841]). Positive lysates [LY416213] (100ug) and [LC416213] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416213]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201725 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FICD protein (Cat# [TP301725]). The protein was produced from HEK293T cells transfected with FICD cDNA clone (Cat# RC201725) using MegaTran 2.0 (Cat# [TT210002]).