

## Product datasheet for **RG201725**

### **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:	TurboGFP
Symbol:	HYPE
Synonyms:	HIP13; HYPE; UNQ3041
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG201725 representing NM\_007076  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGATGCTCATACCAATGGCTTCAGTGATGGCGGTGACTGAACCGAAATGGGTCTCGGTCTGGAGCCGCT  
 TCCTCTGGGTGACGCTGCTGAGCATGGTCTGGGGTCCCTGCTGGCCCTGCTGCTGCCGCTGGGGCTGT  
 GGAGGAGCAGTGCTTGGCTGTGCTCAAAGGCCTCTACCTGCTCAGGAGCAAACCGACAGGGCGCAGCAT  
 GCCGCCACCAAGTGCACCAGCCCGTCCACGGAGCTCAGCATCACCTCCAGGGGCGCGACGCTGCTGGTGG  
 CCAAGACCAAGGCCTCTCCAGCGGGTAAGTTGGAAGCCAGAGTGCCTGAACAGGCCCTGGAGATGAA  
 GCGCCAGGGCAAGCGGAAAAAGCCAAAAGCTTTCATGCACGCCCTCAAGATGGACCCGGACTTCGTG  
 GACGCGCTCACCGAGTTTGGCATCTTCTCGAAGAAGACAAGGACATCATCCAGGCGGACTACTTGTACA  
 CCAGAGCATTGACCATCTCACCTACCATGAGAAAGCACTGGTCAACCGCATCGGACACTGCCTCTTGT  
 GGAAGAGATCGACCAGAGGTATTTAGCATCATCGACAGCAAAGTGAAGAAGGTCATGTCCATCCCCAAG  
 GGGAACTCAGCTCTGCGCAGGGTCATGGAGGAGACCTACTACCATCACATCTACCACACAGTGGCCATCG  
 AGGGCAACACCCTCACCTCTCGAAATCAGGCACATCCTGGAGACCCGCTACGCCGTGCCCGGGAAGAG  
 CCTGGAGGAGCAGAACGAGGTATAGGCATGCATGCAGCCATGAAGTACATCAACACGACTCTGGTTTCG  
 CGCATCGGCTCCGTACCATCAGCGACGTGCTGGAGATCCACAGGCGGGTCTGGGCTACGTGGACCCCG  
 TGAAGCCGCGCAGGTTTCGGACAACACAGGTCTGGTGGACACCACATCCCTCCCCATCCGAGGATGT  
 GGAAAAGCAGATGCAGGAGTTTGTACAGTGGCTCAACTCCGAGGAAGCCATGAACCTGCACCCAGTGGAG  
 TTTGCAGCCTTAGCCATTATAAACTCGTTTACATCCACCCTTTCATTGATGGCAACGGGAGGACCTCCC  
 GTCTGCTCATGAACCTCATCCTCATGCAGGCGGGCTACCCGCCATCACCATCCGCAAGGAGCAGCGGTC  
 CGACTACTACCAGTGTGGAAAGCTGCCAACGAGGGCGACGTGAGGCCTTTCATTGCTTATCGCCAAG  
 TGTACTGAGACCCTGGACACCCTGCTTTTTGCCACAAGTACTCGGTGGCACTGCCAGAAGCCC  
 AACCCAACCACTCTGGGTTCAAGGAGACGCTTCTGTGAAGCCC

**ACCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG201725 representing NM\_007076  
 Red=Cloning site Green=Tags(s)

MMLIPMASVMAVTEPKWVSWSRFLWVTLTSMVLGSLALLLPLGAVEEQCLAVLKGLYLLRSKPDRAQH  
 AATKCTSPSTELITSRGATLLVAKTKASPAGKLEARAALNQALEMKRQKREKAQKLFMHALKMDPDFV  
 DALTEFGIFSEEDKDI IQADLYTRAL TISPYHEKALVNRDRTLPLVEEIDQRYFSIIDSKVKKVMSIPK  
 GNSALRRVMEETYHHIYHTVAIEGNTLTLSEIRHILETRYAVPGKSLEEQNEVIGMHAAMKYINTTLVS  
 RIGSVTISDVLEIHRRLVGYVDPVEAGRFRRTQVLVGHHPHPQDVEKQMEFVQWLNSEAMNLHPVE  
 FAALAHYKLVYIHPFIDGNGRTSRLMNLILMQAGYPPITIRKEQRSDYYHVLEAANEGDVRPFIRFIAK  
 CTETTLDTLLFATTEYSVALPEAQPNSGFKETLPVKP

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**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:**

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

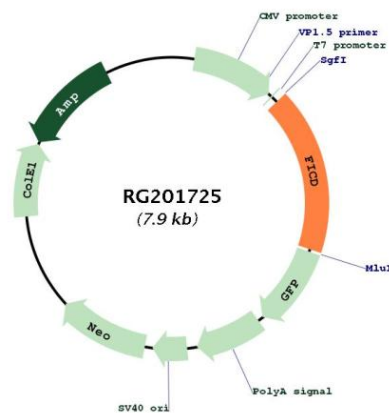
**UniProt ID:** [Q9BVA6](#)

**Cytogenetics:** 12q23.3

**Protein Families:** Transmembrane

**Gene Summary:** 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]

### Product images:



Circular map for RG201725