

Product datasheet for **MR200367**

Ift20 (BC002040) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ift20 (BC002040) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Ift20
Synonyms: RP23-399H5.8
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR200367 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCCAAGGACATCTTGGGCGAGGCAGGGCTGCATTTTGTGAACTGAACAAGCTCCGAGTGTTGGACC
CAGAGGTCACCCAGCAGACTGTGGAGCTCAAGGAGGAGTGCAAGGACTTTGTGGACAAAATTGGCCAGTT
TCAGAAAATTGTTGGTGGTCTAATTGAGCTTGTGATCAGCTTGCCAAAGAAGCAGAGAACGAGAAGATG
AAGGCCATTGGTCTCGGAAGTCTGAAGTCCATAGCGAAGCAGAGAGAAGCCAGCAGCAGCTGC
AGGCCCTGATAGCAGAAAAGAAGACGCAGCTAGAAAGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR200367 protein sequence
Red=Cloning site Green=Tags(s)
MAKDILGEAGLHFDELNKLRLVDPEVTQQTVELKEECKDFVDKIQGFQKIVGGLIELVDQLAKEAENEKM
KAIGARNLLKSIKQREAAQQQLQALIAEKKTQLER

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: BC002040

ORF Size: 318 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: [BC002040](#), [AAH02040](#)

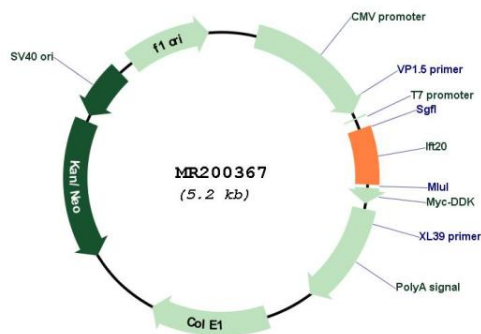
RefSeq Size: 1193 bp

RefSeq ORF: 320 bp

Locus ID: 55978
Cytogenetics: 11 B5
MW: 12 kDa

Gene Summary: Part of intraflagellar transport (IFT) particles involved in ciliary process assembly. May play a role in the trafficking of ciliary membrane proteins from the Golgi complex to the cilium (PubMed:16775004). Regulates the ciliary platelet-derived growth factor receptor-alpha (PDGFRA) signaling pathway. Required for protein stability of E3 ubiquitin ligases CBL and CBLB that mediate ubiquitination and internalization of PDGFRA for proper feedback inhibition of PDGFRA signaling (PubMed:29237719). Essential for male fertility. Plays an important role in spermatogenesis, particularly spermiogenesis, when germ cells form flagella. May play a role in the transport of flagellar proteins ODF2 and SPAG16 to build sperm flagella and in the removal of redundant sperm cytoplasm (PubMed:27682589). Also involved in autophagy since it is required for trafficking of ATG16L and the expansion of the autophagic compartment (PubMed:24089209).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR200367