

Product datasheet for **RG206914**

IHO1 (NM_178173) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	IHO1
Synonyms:	CCDC36; CT74; LELA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence: >RG206914 representing NM_178173
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCTCAGTATTCCTTCAGGCTCTGGGAACAAGAAGTCATCCAACCTGGAATAATAATCAAAATGATTATT
 CCAGTCTCAGTGATTCCCAGTTCTCTTTGGATCTCAGTTCTGTCCAGAAAATTCAGAAACCTATCAGC
 ACCCTTGGAATTTGGTGGCCACTTGAGACATTCAAAACAGTCACAACAGAACTATCTGGAGGGTGAACCT
 AGCATTTTCACAAAGTACCAGACAAAGCCCCAGCTGTTCCGAGGAGATATAAAGATGGAGGTTTATTTT
 CTCCTCCTTTGTCAGTTGGAAAATCAAAAGGCTCTTGGAACAGTTTGAGGAGAAAAAGAAAGGGCAAA
 AGACAAATGTGACAGTGAGACTCTATACAACCTTGTCTTAATGTTAGAGAAAGCATTCTCAGTTGTCAG
 ACGTCTGTGAAAAAGTCTGAGGACCATCTCAGTTCAAGAAGCCAATCTATTTTGGATTCTTTGGAGACTG
 TGGCCAAGACATTACAAGAGACTATACAGGCCCAGAATGACCTGGTGTGTTGAGGCAGTCCAGGACAAAGG
 CAACATGGAGCAGGCCATCCTTGAGATGAAGAAAAGATTTGAAGCTAGACAAGGAGAGTTTATAGAAATG
 AAGTCCAACCTGAAGCACCTTGAAAGTTTGTGTTGCTCAGCAGAGTCAGGAATTCAGCAGCTGTGTGAGC
 AGCTAGGCCAGCTGAATGTGCCAGTGCTCTAGCAGAGCTGAAGAGATTGATCTCAGTGCCTCCAGTGAA
 AGACAGTGCTTCTCAGAGCTGCCACCTTTGGCCAGAGCCTCAATCTCACCAGGCAGGAAAAATACACC
 TCTGAGAAACCAAGTTTATGGCAGGCCAGGCCCTCCCTGCTGCATGGAATCCTGGTATGGGCTCCCTAC
 AGCCTGGAGAATTTGATGTCTGGGGTGAAGGAGCAAGAATGATGATCTCCAAGAAGAGGCTGCACTGCC
 AGCATTTGGGTCCCATGAAAGAAATAGGCATGTAAGGACAAGGTGGTGCAGACTAACTGCAAGAACTGG
 GCTGTACTAAAACAGGTGCCAAGAACCATTGGTCCAGCGTCCAGGCCATAAGATTCCAGTGACAGGG
 ACCTGGTTTCCCAAGGAGCCTCACAGCTCACATCATTGGAGATAAACTTTCAACCAGCATTAAAGATGC
 CTGCCAAAAATATCAAGCCAAAGTATGTTTTGTGTGACCCACGTGAACATTTGGTGATTAAACAGAAA
 GATGGGACTGTAGAAATGCGGGGGAAGACAAGAAGCAGCAGCCAGGAAGGCCACAGGGCCACAGAG
 GCAGGCTCATAGCCAGCAAGCAAAAACAAATCCCAATCCAGACCTGTAATTCATTTCAAAATATCAGAG
 TCCTCAGCTGCAATTTCTGTCCCTCAAAGCCCTTCTGGGGCAGCAGGAACCCCGTGTCTCAGCCTCTG
 CATCTGCAGTGTCCAGGAGCCCCAGAAAACCAAGTCTGCCCTATTCTGGGAGGAACAGTCATGCCCAATA
 AGACAGTAAGGGCAGTGCAGGGAAGACTCTTGACGCTCAGCAGGTGCTCTTCCCAAGACAACCTGGCTACT
 TTCCAGCAGTTCCAGGGGGACCACCAGATGAGCTGGTTCAGTGACCTCAATCTCGGATGTTCCAGAGACC
 CCTCTATGCAAGGAGGCAGGAAAGAATTTGCTCTATGACCTGGGTTTTGATAGCAGTGATGATGATGGCT
 TC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG206914 representing NM_178173
 Red=Cloning site Green=Tags(s)

MLSIPSGSGNKKSSNNNNQNDYSSLSDSQFLFGSQFCPENSETLSAPLDFGAHLRHSKQSQNNYLEGEP
 SIFTKYQTKPQLFGGDIKDGGLFPPPLSVGKSKGLLEQFEKKKKRAKDKCDSETLYNFVSNVRESILRLQ
 TSVEKSEDLSSRSQSILDSLETVAKTLQETIQQNLDLVFEAVQDKGNMEQAILEMKRFEARQGEFIEM
 KSNLKHLEVLVAQSQEFQQLCEQLGQLNVPSVLAELKRLISVPPVKDSASQTSPLAQSLNLTRQEKYT
 SEKPVWLQAQALPAAWNPGMGLQPGEFDVWGEAKNDLQEEAALPAFGSHERNRHVKDKVVQTNCKNW
 AVTKTGAKNHGSSVPGHKIPSDRDLVSQASQLTSLEINFSTSIKNACQKYQAQSMFLCDPREHLVIKQK
 DGTVMRGKDKKQPRKAHRAHRGRLIASKQKQIPIQTCKFNSKYQSPQPAISVPQSPFLGQQEPRAQPL
 HLQCPSPRPKPVCPILGGTVMPNKTVRVQGRLLQLSRCSSQDNWLLSSSSQGDHQMWSFSDLNLGCSET
 PLCKEAGKNLLYDLGFDSSDDGDF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_178173

ORF Size: 1752 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_178173.2](#), [NP_835467.1](#)

RefSeq Size: 2628 bp

RefSeq ORF: 1785 bp

Locus ID: 339834

UniProt ID: [Q8IYA8](#)

Cytogenetics: 3p21.31

Gene Summary: Required for DNA double-strand breaks (DSBs) formation in unsynapsed regions during meiotic recombination. Probably acts by forming a complex with MEI4 and REC114, which activates DSBs formation in unsynapsed regions, an essential step to ensure completion of synapsis. Not required for HORMAD1 functions in pairing-independent synaptonemal complex formation, ATR recruitment to unsynapsed axes, meiotic silencing of unsynapsed chromatin (MSUC) or meiotic surveillance.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG206914