

Product datasheet for **RG215212**

IWS1 (NM_017969) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IWS1 (NM_017969) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IWS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG215212 ORF sequence, **codon optimized**.
 Due to the complexity of NM_017969, the ORF clone is codon optimized for mammalian Expression.
 The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGACTCCGAATATTACTCTGGAGATCAGTCTGACGACGGCGGGCAACCCCGTGCAGGATGAGCGGG
 ATAGTGGGTCTGATGGGAAGATGACGTCAACGAACAGCACAGCGGTAGTGACACGGGTAGCGTAGAGAG
 GCACAGCGAAAAATGAGACAAGTGACCGGAAGACGGCTTGCCCAAGGGCCACCACGTACAGATTCAGAG
 AATGACGAACCTCTGAACCTGAATGCGTCTGACAGCGAGTCAAGAGATTGCATCGACAGAAAGACAGTG
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 GGGCAGCTAGTGACAGCGAGAACGAAGACGTTGGCAAACATCCGGCTAGCGATAGCGAAATGAAGAGC
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 CTAGCGCATAGTGAAAACGAAGAGCTGCCTAAGCCCCGATATCCGACTCCGAGTCTGAGGATCCGCCAAG
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 CTGAAAATTCGGGAAGAGTTGTTGAAGATTCTGCAGGAGTGCCATCCGTATCACAGGAAACCCCTGAAAC
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 GAGATGGAGAGCAGTCCGTTCCAAGCCACTAGTAAGAAGGGATTTTACGGCTGGACAAACAGATGCGCA
 AATTTACCGACATCAGAAAGAAGTCTCGGTCTGCTCATGCTGTTAAGATTTCCATCGAGGGCAATAAGAT
 GCCACTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215212 representing NM_017969
 Red=Cloning site Green=Tags(s)

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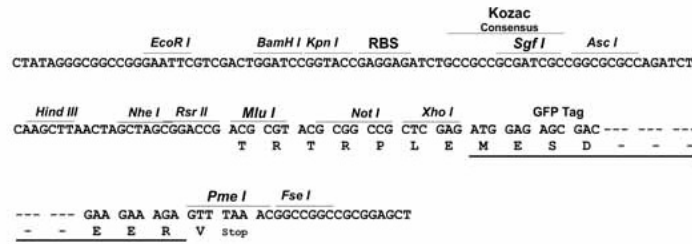
MDSEYYSGDQSDDGATPVQDERDSGSDGEDDVNEQHSGSDTGSVERHSENETSDREDGLPKGHVTDSE
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SESEELPKPQVSDSESEEPHPRHQASDSENEELPKPRISDSESEDPHPRHQASDSENEELPKPRISDSESE
PPRNQASDSENEELPKPRVSDSESEGPQKGPASDSE TEDASRHKQKPESDDDSDRENKGEDTEMQNSFH
SDSHMDRKKFHSSDSEEEHKKQKMDSDDEDEKEGEEKVAKRKAAVLS DSEDEEKASAKKSRVSDADDS
DSDAVSDKSGKREKTIASDSEEEAGKELSDKKNEEKDLFGSDSESGNEENLIADIFGESGDEEEEF TG
FNQEDLEEEKGETQVKEAEDSDSDNIIKRGKHMDFLSDFEMMLQRKKSMSGKRRRNRDGGTFISDADDVV
SAMIIVKMNEAAEEDRQLNNQKPKALKKLTLLPAVVMHLKKQDLKETFIDSGVMSAIKEWLSPLPDRSLPA
LKIREELLKILQELPSVSQETLKHSGIGRAVMYLYKHPKESRSNKDMAGKLINWSRPIFGLTSNYKGMT
REEREQRDLEQMPQRRRNMSTGGQTPRRDLEKVL TGEKALRPGDPGFCARARVPMPSNKKDYVVRPKWNV
EMESSRFQATSKKGISRLDKQMRKFTDIRKKSRAHAVKISIEGNKMPL
  
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

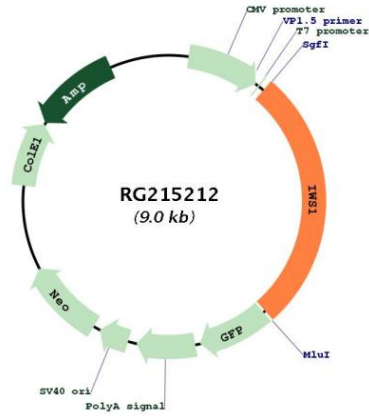
Cloning sites used for ORF Shuttling:



ACCN: NM_017969

ORF Size:	2457 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_017969.1 , NP_060439.1
RefSeq Size:	2973 bp
RefSeq ORF:	2460 bp
Locus ID:	55677
UniProt ID:	Q96ST2
Cytogenetics:	2q14.3
Gene Summary:	<p>Transcription factor which plays a key role in defining the composition of the RNA polymerase II (RNAPII) elongation complex and in modulating the production of mature mRNA transcripts. Acts as an assembly factor to recruit various factors to the RNAPII elongation complex and is recruited to the complex via binding to the transcription elongation factor SUPT6H bound to the C-terminal domain (CTD) of the RNAPII subunit RPB1 (POLR2A). The SUPT6H:IWS1:CTD complex recruits mRNA export factors (ALYREF/THOC4, EXOSC10) as well as histone modifying enzymes (such as SETD2) to ensure proper mRNA splicing, efficient mRNA export and elongation-coupled H3K36 methylation, a signature chromatin mark of active transcription.[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RG215212