

## Product datasheet for **MG221858**

### Ipo7 (NM\_181517) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ipo7 (NM_181517) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ipo7
Synonyms:	A330055O14Rik; C330016G14; Imp7; Ranbp7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG221858 representing NM_181517 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATCCCAACACCATCATCGAGGCCCTCCGGGGCACCATGGACCCAGCCCTGCGCGAGGCCGCTGAGC  
GCCAGCTCAATGAAGCACACAAGTCTCTGAATTCGTTTCAACACTGCTCCAGATTACTATGTCAGAACA  
ACTGGATTTACCTGTGAGACAGGCAGGTGTTATTTATTTAAAAAATATGATAACACAATATTGGCCTGAT  
CGGAAGCCACACCAGGGGACATCGCTCCATACTATCCAGAAGAAGACCGGCATTGTATTGAGAAA  
ATATTGTAGAAGCCATTATCCACTCACCTGAGCTTATCAGGGTACAGCTTACTACGTGCATCCATCATAT  
CATCAAACATGACTATCCAAGCCGCTGGACTGCCATTGTGGACAAGATTGGCTTTTATCTTCAGTCTGAT  
AACAGTGCTTGTGGCTGGGAATCCTTCTTTCCTTTATCAGCTTGTGAAAAATTATGAGTACAAGAAAC  
CAGAAGAGCGAAGTCCGTTAGTGGCAGCCATGCAGCACTTTCTGCCAGTTCTGAAGGATCGCTTTATCCA  
GCTGCTTCTGACCAATCCGACCAGTCTGTCTCATTCAAAGCAGATATTCAAGATCTTCTATGCTCTT  
GTTCAATATACTACCCCTGGAGCTGATAAACCAACAGAATCTAACTGAATGGGTAGAAATTTGAAGA  
CAGTTGTGAATAGGGATGTACCTAATGAAACACTTCAAGTTGAAGAAGATGATAGACCTGAGTTACCCCTG  
GTGAAATGTAAGAAGTGGCCCTACATATTTTAGCAAGACTTTTGAAGATATGGAAGCCCTGGGAAT  
GTTTCTAAGGAGTATAATGAGTTTGTGAAGTCTTCTGAAGCCCTTTGCTGTTGGTGTCCAGCAAGTTT  
TATTGAAAGTGTATATCAGTACAAGGAAAAACAATATATGGCGCCTCGAGTTTTACAGCAGACATTAAA  
TTATATTAATCAAGGAGTTTCCCATGCCTTACGTGGAAGAACCCTGAAGCCCATATACAAGGCATTATC  
CAAGATGTTATTTTCCATTGATGTGCTATACAGATGCTGATGAGGAGCTCTGGCAAGAAGATCCTTATG  
AATATATACGCATGAAGTTTCGATGTGTTGAAGATTTTCTTCTACTACTGCTGCTCAAACACTTTT  
GTTTACAGCCTGTAGCAAAGGAAAGAGGTACTGCAAAGACTATGGGATTTTGTACCAAATCTTACT  
GAACCAATGCTGATCCTCGAAAAAAGATGGAGCCTTGCATATGATTGGCTCTTGTAGTAAATACTTC  
TAAAGAAAAAGATCTACAAGATCAAATGGAATACATGTTGCAAAATCATGATTTCTCTCTTCAGCAG  
TGAGCTAGTTACATGAGAGCAAGGGCTTCTGGGTTCTCACTATTTTTGTGAAGTGAAGTTCAAAGT



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GATCAAAATCTCCAAACAGCTTTAGAGCTGACAAGAAGATGTCTGATTGATGATCGAGAAATGCCTGTGA  
 AAGTGGAAAGCTGCCATTGCACTACAGGTGTTGATCAGCAATCAAGAAAAAGCTAAAGAGTACATCACTCC  
 ATTTATCAGACCTGTCATGCAGGCTCTTCTTCATATTATAAGAGAAAACAGAAAATGATGATCTTACAAAT  
 GTAATTCAGAAAATGATCTGTGAATATAGTGAAGAAGTACTCCTATTGCTGTAGAAATGACACAACATC  
 TGGCAATGACATTTAACCAAGTAATCCAGACTGGGCCAGATGAGGAAGGAAGTATGACAAAAGCAGTTAC  
 TGCTATGGGAATCTGAACACAATTGATACACTTCTGAGTGTGGTTGAAGATCACAAAGAGATAACCCAG  
 CAGCTTGAGGGAATCTGCTTACAAGTCATTGGGACCGTTCTACAACAGCATGTCTTAGAATCTATGAGG  
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 GCAGTGCAAAGGCCGGGCATTGATCAGTGTATACCATTATTCGTGGAAGCAGCTTTAGAAAAGACTGACC  
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 CACACCTACTGCTTAATACTTTAGAAAATCTTCGCTTCCCAAATATGTTGAACCTGTTACAAATCATT  
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 CTTTTATCCTTTATTTAATGGATTGAAAAGAGCATATGCCTGCCATGCAGAACACGAGAATGACAGTGA  
 CGATGATGAGGATGCGGAAGATGATGATGAAAATGAAGAAGTGGGGAGTGAAGATGATATTGATGAA  
 GATGGACAAGAATATTTGGAGATCTCGGCTAAACAAGCTGGTGAGGATGGAGATGATGAAGATTGGGAAG  
 AAGATGATGCTGAGGAGACTGCTCTGGAAGGCTATTCCACAATCATCGATGATGAAGACAACCTGTTGA  
 TGAGTATCAAATCTTTAAAGCTATTTCAAATATTCAAATCGCAATCCTGTATGGTATCAGGCTTTG  
 ACTCACGGTCTTAATGAAGAGCAAAGGAAACAGTTACAGGACATAGCAACTCTAGCTGATCAAAGAAGAG  
 CAGCCCATGAGTCCAAAATGATTGAAAAGCATGGAGGATACAAAATTCAGTGCACCAGTTGTGCCAAGTTC  
 TTTCAATTTTGGAGGCCACGACCGGGGATGAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG221858 representing NM\_181517  
 Red=Cloning site Green=Tags(s)

MDPNTIIEALRGTMDPALREAERQLNEAHKSLNFVSTLLQITMSEQLDLVPRQAGVIYILKNMITQYWPD  
 REATPGDIAPYTIPEEDRHCIRENIVEAIIHSPELIRVQLTTCIHHI IKHDYPSRWTAIVDKIGFYLQSD  
 NSACWLGILLCLYQLVKNEYKPKPEERSPLVAAMQHFLPVLKDRFIQLLSDQSDQSVLIQKQIFKIFYAL  
 VQYTLPLELINQNLTEWVEILKTVVNRDVPNETLQVEEDDRPELPWWKCKKWLHILARLFERYGSPGN  
 VSKEYNEFAEVFLKAFVGVQVLLKVLQYKEKQYMAPRVLQQLNYINQGVSHALTWKNLPHIQGII  
 QDVIFPLMCYTDDEELWQEDPYEYIRMKFDVFEFISPTTAAQTLFTACSKRKEVLQKTMGFCYQILT  
 EPNADPRKKDGALHMIGSLAEILLKKKIYKQMEYMLQNHVPLFSSELGYMRARACWVLFHYFCEVKFKS  
 DQNLQTALELTRRCLIDDREMPVKVEAIALQVLSNQEKAKEYITPFIRPVMQALLHI IRETENDDLTN  
 VIQKMICEYSEEVTPIAVEMTQHLAMTFNQVIQTGPDEEGSDDKAVTAMGILNTIDTLLSVVEDHKEITQ  
 QLEGICLQVIGTVLQQHVFYEEIFSLAHSLTCCQVSPQMWQLLPLVFEVFPQDGFDFDMMPLLLHNY  
 VTVDTDLLSDTKYLEMIYSMCKKVLTVGAGEDAECHAAKLLEVIILQCKGRGIDQCIPLFVEAALERLT  
 REVKTSELRTMCLQVAIAALYYNPHLLLNTLENLRFNNVEPVTNHFITQWLNVDVDFGLHLDKRMCVLG  
 LCALIDMEQIPQVLNQVSGQILPAFILLFNLKRAYACHAEHENDSDDDEDAEDDDETEELGSEDDIDE  
 DGQEYLEILAKQAGEDGDDEDWEEDDAEETALEGYSTIIDDEDNPVDEYQIFKAIQTIQNRNPVWYQAL  
 THGLNEEQRKQLQDIATLADQRRAAHESKMIIEKHGGYKFSAPVVPSSFNFGGPAPGMN

TRTRPLE - GFP Tag - V

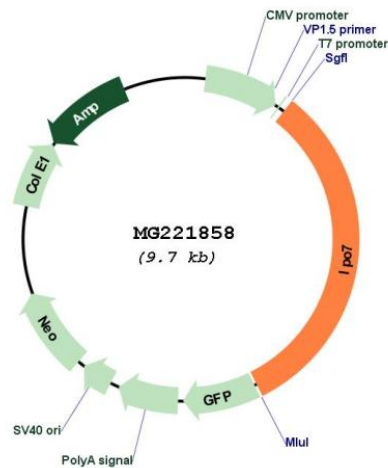
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_181517

ORF Size: 3114 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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_181517.5</a>
<b>RefSeq Size:</b>	3117 bp
<b>RefSeq ORF:</b>	3117 bp
<b>Locus ID:</b>	233726
<b>UniProt ID:</b>	<a href="#">Q9EPL8</a>
<b>Cytogenetics:</b>	7 E3
<b>Gene Summary:</b>	Functions in nuclear protein import, either by acting as autonomous nuclear transport receptor or as an adapter-like protein in association with the importin-beta subunit KPNB1. Acting autonomously is thought to serve itself as receptor for nuclear localization signals (NLS) and to promote translocation of import substrates through the nuclear pore complex (NPC) by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. Mediates autonomously the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A. In association with KPNB1 mediates the nuclear import of H1 histone and the Ran-binding site of IPO7 is not required but synergizes with that of KPNB1 in importin/substrate complex dissociation (By similarity). In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones.[UniProtKB/Swiss-Prot Function]