

## Product datasheet for **MG210501**

### **Ipo4 (BC003469) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |                                        |
|---------------------------|----------------------------------------|
| Product Type:             | Expression Plasmids                    |
| Product Name:             | Ipo4 (BC003469) Mouse Tagged ORF Clone |
| Tag:                      | TurboGFP                               |
| Symbol:                   | Ipo4                                   |
| Synonyms:                 | RanBP4, Imp4a                          |
| Mammalian Cell Selection: | Neomycin                               |
| Vector:                   | pCMV6-AC-GFP (PS100010)                |
| E. coli Selection:        | Ampicillin (100 ug/mL)                 |



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**ORF Nucleotide  
Sequence:**

>MG210501 representing BC003469  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**

ATGGGGGAGACTCCCAAGCACTTTGCTGTACAGTTGTGGACATGCTGGCACTACATCTTCCCCCTGAGA  
 AGCTCTGTCCCATGTGATGCCCATGCTGGAAGAAGCCTTGCAGGAGCAGGACCCATACCGCGCAAAGC  
 AGGATTCTGGTGTGGCTGTGCTGTGATGGTGCAGGCGACCACATCAGGCAGAGACTGCTGTACCCA  
 CTGCTACAGATTGTGTGAAGGGCTGGATGACCCCTCACAGATTGTTCTGAATGCTGCTGTTCGCC  
 TGGGCCAGTTTTAGAGAACTTACAGCCCATATCAGCAGCTACTCTGAGGAGGTGATGCCCTTCTCT  
 CTCCTACCTGAAGTCAGTGCCGATGGGAAACACACACCACCTGGCCAAGGCCTGCTATGCTCTGGAGAAT  
 TTTGTGGAGAACCTAGGGCCAAAGTGCAGCCCTACCTTCCGGAGCTTATGGAATGTATGCTGCAGCCAT  
 TGAAGAACCCAGCAAAGCCCGACCAAGGAGCTAGCTGTGAGCGCCATAGGGGCCATTGCCACAGCGGC  
 CCAGGATTCCCTGCTGCCCTACTTCCCTACCATCATGGATCTTCTCCGGAGTTCTTGTGACAGGCCAC  
 GAAGACTTTCATCTTGTGCAGATCCAGAGCCTGGAGACCCTGGGAGTGCTAGCACGAGCCCTGGGAGAGT  
 CCATGAAGCCCTGGCTGAGGAATGCTGTGAGCTTGGGCTAGGGTTATGCATCCATATAGATGACCTGA  
 CGTGAGGCGCTGCACGTACAGCCTGTTTGACAGCCTTATCAGGGTTAATGGGAGAGGGCTTGGGACCTAC  
 CTGCCTCAGATTACCACGCTCATGCTGCTGTGCTGCGCTCCACTGAGGGCATTGTGCCACAGTATGACG  
 GGATCAGCTCCTTCTGCTGTTTGATGACGACAGCGAAGCAGAAGAGGAGGAGGAGCTCATGGATGAAGA  
 TATGGAAGAGGAGGGGATGACTCTGAGATCTCGGGTATAGTGTGGAGAATGCCTTCTTTGATGAGAAA  
 GAAGACACCTGCACCGCCTGGGGGAGATCTCCATGAACACCTGTGTGGCTTTTCTCCATTCTATGGATG  
 CCACCTTCGATGAAGTATACAACTGCTGGAGTGCCCTCATATGAATGTGCGGAAGTCAGTTACGAAGC  
 GCTGGGACAGTTCTGCTGTGCACTGCATAAGGCCTCTCAGAGAAGCTCCTCAGATCCAGCAGCAGTCCC  
 GTTCTGCAGACCTCCCTGGCTCGAGTGATGCCAGCTTACATGCAGGCCGTGAAAGTAGAAAGGGAGCGCC  
 CAGTGGTGATGGCCGTGCTGGAGTCCCTGACAGGGGTGCTGCGCACCTGCGGCAGCCTTGCAGTGCAGCC  
 TCCTGGGCGGCTCAGTGAGCTCTGCAACGTGCTCAAGGCTGTGCTGCAGAAAAAGACGGCCTGTCAGGAC  
 GCCGAGGAGGATGATGACGAAGATGATGACCAGGCAGAGTATGACGCCATGTTACTAGAACATGCTGGAG  
 AGGCCATTCCCGTCTGGCAGCCACAGCTGGAGGACACGCCTTCGCTCCCTTCTTGGCACGTTCTTGCC  
 ATTGTTGCTGTGAAGACGAAACAGAGCTGTACAGTGGCAGAGAAGTCCTTTGCTGTGGAAACCCTGGCA  
 GAGTCCATTACAGGTCTAGGGACCGCTCAGCCAGTTTGTGTCTCGGCTGTTCCCTGTGCTGTTAAACA  
 ATGCCCGGAAGCAGACCCTGAGGTGCGGAGCAATGCCATCTTTGGGTTGGGCGTACTGGCAGAGCATGG  
 CGGCTGCCTGCTCAGGACCACTTCCCTAAGCTACTGGGCCTCCTTTGCCCCTGCTGGCAAGGGAGCGA  
 CATGATCGAGTCCGTGATAACATCTGCGGGGCTTGGCCGTGACTGATGGCCAGTCCAGTAGGAAAAA  
 CGGAGCCCCAGGTGCTGGCTACCTGCTACGTGCCCTGCCCTGAAGGAAGACATGGAGGAGTGGCTCAC  
 TATAGGTACCTCTTCAGCTTCTGCACCAGAACATCCTGAGCAGGTTGTGGATGTGGCTTCAGAACTC  
 CTGCGCATCTGCAGCCTGATCCTGCCGACAACCGGATCCCTCCAGACACCAAGGCGGCCCTGCTGCTGC  
 TCCTGACGTTCTGGCCAAGCAGCACACCGACGCTTCCACACAGCCCTGGGCTCTTGCCAAATGATAA  
 AGCTCAGGAACCTCAGGCCATGATGGGCCTCACT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >MG210501 representing BC003469  
 Red=Cloning site Green=Tags(s)

MGETPKHFAVQVVDMLALHLPPEKLCPHVMPMLEEALRSEDYPYQRKAGFLVLAVLSDGAGDHIRQRLLYP  
 LLQIVCKGLDDPSQIVRNAALFALGQFSENLPQHISSYSEEVMPLLL SYLKSVPMGNTTHLAKACYALEN  
 FVENLGPKVQPYLPELMECMLQPLKNPSKARTKELAVSAIGAIATAAQDSSLPPYFPTIMDLLREFLLTGH  
 EDFHLVQIQSLETLGVLARALGESMKPLAECCQLGLGLCIHIDDPDVRCTYSLFAALSGLMGEGLGPY  
 LPQITTLMLLSLRSTEGIVPQYDGISSFLLFDDDDSEAEIEEEELMDEDMEEEGDDSEISGYSVENAFFDEK  
 EDTCTALGEISMNTCVAFLPFMDATFDEVYKLLCAPHMNVKRSAYEALGQFCCALHKASQRSSSDPSSSP  
 VLQTSLARVMPAYMQAVKVERERPVMVAVLESLTGVLRTCGSLALQPPGRLSELCNVLKAVLQKKTACQD  
 AEEDDDDEDDQAEYDAMLLHAGEAIPVLAATAGGHAFAPFFATFLPLLCKTKQSCVAKSFVAGTLA  
 ESIQGLGTASAQFVSRLFPVLLNNAREADPEVRSNAIFGLGVLAEHGGCPAQDHFPKLLGLLLPLLARER  
 HDRVRDNICGALARVLMASPVGKTEPQVLATLLRALPLKEDMEEWLTIGHLFSFLHQNNEPQVVDVASEL  
 LRICSLILPDNRIPPDTKAALLLLLTFLAKQHTDSFHTALGSLPNDKAQELQAMMGLT

TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** BC003469

**ORF Size:** 2274 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:** [BC003469.1](#)

**RefSeq Size:** 2833 bp

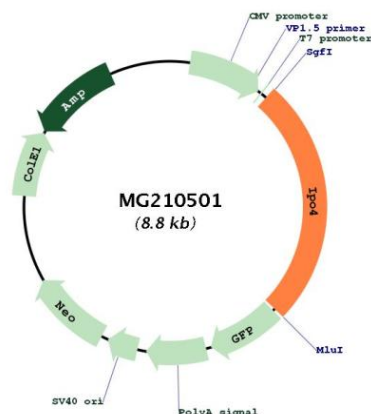
**RefSeq ORF:** 2276 bp

**Locus ID:** 75751

**Cytogenetics:** 14 28.19 cM

**Gene Summary:** Functions in nuclear protein import as nuclear transport receptor. Serves as receptor for nuclear localization signals (NLS) in cargo substrates. Is thought to mediate docking of the importin/substrate complex to the nuclear pore complex (NPC) through binding to nucleoporin and the complex is subsequently translocated through the pore by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to the importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. The directionality of nuclear import is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus (By similarity). Mediates the nuclear import of RPS3A. Acts as chaperone for exposed basic domains.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MG210501