

Product datasheet for **RG211049**

Importin4 (IPO4) (NM_024658) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Importin4 (IPO4) (NM_024658) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Importin4
Synonyms:	Imp4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211049 representing NM_024658 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGTCAGCCGGGCTAGAGCAGCTCCTACGGGAGCTGCTGCTACCGGACACCGAGCGCATCCGTCGGG
CCACGGAACAGCTCCAGATCGTTCTTCGGGCCCCCGCCGCTTTGCCGGCTCTCTGCGACCTGCTAGCCTC
GGCGGCCGACCCAGATCCGCCAGTTTGGCGCCGTGCTGACCCGACAGACTGAACACCCGCTGGCGA
CGGCTGGCGCGGAGCAACGGGAGAGCCTCAAGTCCCTGATCCTGACGGCCCTGCAGAGAGAAACAGAGC
ACTGTGTGAGCCTCAGCCTGGCCAGCTCTCAGCCACCATTTTCGAAAGGAAGGCTTGGAGGCCTGGCC
ACAGCTTTTGCAGCTGCTTCAGCACAGTACCCACAGCCCCACAGCCCAGAGAGAGAGATGGGGCTTTTG
CTGCTAAGTGTGGTGGTACCTCCCGGCCGAGGCCTTCCAACCCACACCGGGAGCTTCTTCGGCTTC
TGAATGAGACTCTTGGTGAGGTGGGCTCTCCTGGGCTGCTCTTCTACTCCCTGCGCACTCTGACCACCAT
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CAGACTCTGATCCCCATAGATGAGGCAAGGCCTGTGAGGCCCTTGAGGCTTTGGATGAAGTGTGGAGT
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CCCAGCAGTCCCCGGGCCAAGGAGCTGGCTGTGAGCGCCCTGGGAGCCATTGCTACGGCTGCCAGGCCCT
CGCTGCTGCCCTACTTCCTGCCATCATGGAGCACCTGCGGGAATTCCTGTTAACAGGCCGTGAGGACCT
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GTGCTGGCTGCCCTACTGCATGCCCTGCCACTGAAGGAGGACTTGAGGAGTGGGTACCATTTGGGCGCC
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CAGCCTCATTCTGGCTGACAACAAGATCCACAGACACCAAGGCCGACTGTTGCTGCTCCTGACGTTTC
CTGGCCAAACAGCACACCGACAGCTTCAAGCAGCTCTGGGCTACTGCCTGTTGACAAGGCTCAGGAGC
TCCAGGCTGACTGGGCTCTCC

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ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG211049 representing NM_024658

Red=Cloning site Green=Tags(s)

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MESAGLEQLLRELLLPDTERIRRATEQLQIVLRAPAALPALCDLLASAADPQIRQFAAVLTRRRLNTRWR
RLAAEQRESLKSILITLQRETEHCVSLSLAQLSATIFRKEGLEAWPQLLQLQHSTHSPHSPEMGLL
LLSVVVTSRPEAFQPHHRELLRLLNETLGEVSGPGLLFYSLRTLTTMAPYLSTEDVPLARMLVPKLIMAM
QTLIPIDEAKACEALEALDELLESEVPVITPYLSEVLTFCLEVARNVALGNIRILCCLTFLVKVSKS
ALLKNRLLPPLLHTLPFIVAAEPPPGQLDPEDQDSEEELEIELMGETPKHFAVQVVDMLALHLPPEKLC
PQLMPMLEEALRSESPYQRKAGLLVLAVLSDGAGDHIRQLLPPLLQIVCKGLEDP SQVVRNAALFALGQ
FSENLQPHISSYSREVMPLLLAYLKSVPGLGHTHHLAKACYALENFVENLGPKVQPYLPELMECMLQLLRN
PSSPRAKELAVSALGAIATAAQASLLPYFPAIMEHLREFLLTGREDLQPVQIQSLETGLVLAARAVGEMR
PLAECCQLGLGLCDQVDDPDLRRCTYSLFAALSGLMGEGLAPHLEQITTLMLLSLRSTEGIVPQYDGSS
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EVFKLLECPHLNVRKAAHEALGQFCCALHKACQSCPSEPNTAALQAALARVVPSYMQAVNRERERQVMA
VLEALTGVLRSCGTLTLKPPGRLAELCGVLKAVLQRKTACQDTDEEEEEEDDQAEYDAMLLEHAGEAIP
ALAAAAGGDSFAPFFAGFLPLLCKTKQCTVAEKSFAVGTLAETIQGLGAASAQFVSRLLPVLLSTAQE
ADPEVRSNAIFGMGVLAEHGGHPAQEHFPKLLGLLPLLARERHDRVDRNICGALARLLMASPTRKPEPQ
VLAALLHALPLKEDLEEWVTIGRLFSLYQSSPDQVIDVAPELLRICSLILADNKIPDPDKAALLLLLT
LAKQHTDSFQAALGSLPVDKAQELQAVLGLS

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TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_024658

ORF Size: 3243 bp

OTI Disclaimer: 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.

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: [NM_024658.4](#)

RefSeq Size: 3606 bp

RefSeq ORF: 3246 bp

Locus ID: 79711

UniProt ID: [Q8TEX9](#)

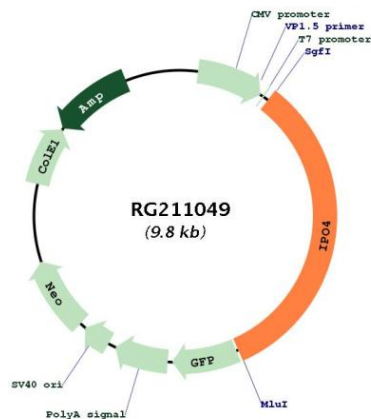
Cytogenetics: 14q12

Domains: IBN_NT, HEAT_PBS

Protein Families: Druggable Genome

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. In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a non-classical NLS.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG211049