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Product datasheet for RC211049

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:	Myc-DDK
Symbol:	Importin4
Synonyms:	Imp4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211049 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTCAGCCGGGCTAGAGCAGCTCCTACGGGAGCTGCTGCTACCGGACACCGAGCGCATCCGTCGGG
CCACGGAACAGCTCCAGATCGTTCTTCGGGCCCCCGCCGCTTTGCCGGCTCTCTGCGACCTGCTAGCCTC
GGCGGCCGACCCCCAGATCCGCCAGTTTGCGGCCGTGCTGACCCGCAGACGACTGAACACCCGCTGGCGA
CGGCTGGCGGCGGAGCAACGGGAGAGCCTCAAGTCCCTGATCCTGACGGCCCTGCAGAGAGAAACAGAGC
ACTGTGTGAGCCTCAGCCTGGCCCAGCTCTCAGCCACCATTTTTCGAAAGGAAGGCTTGGAGGCCTGGCC
ACAGCTTTTGCAGCTGCTTCAGCACAGTACCCACAGCCCCCACAGCCCAGAGAGAGAGATGGGGCTTTTG
CTGCTAAGTGTGGTGGTGACCTCCCGGCCCGAGGCCTTCCAACCCCACCACCGGGAGCTTCTTCGGCTTC
TGAATGAGACTCTTGGTGAGGTGGGCTCTCCTGGGCTGCTCTTCTACTCCCTGCGCACTCTGACCACCAT
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CAGACTCTGATCCCCATAGATGAGGCAAAGGCCTGTGAGGCCCTTGAGGCTTTGGATGAACTGTTGGAGT
CAGAGGTGCCGGTCATCACCCCCTACCTCTCTGAAGTCCTCACATTCTGCCTGGAGGTAGCTAGAAATGT
GGCCCTGGGCAATGCGATACGCATACGTATTCTCTGCTGCCTCACTTTCTTGGTCAAAGTCAAGAGCAAG
GCCTTACTGAAGAATCGTCTCCTGCCACCCTTGCTGCACACCCTTTTCCCCATTGTGGCTGCTGAGCCCC
CACCAGGCCAGTTGGATCCCGAGGACCAGGATTCAGAAGAGGAAGAGTTGGAGATTGAGCTGATGGGGGA
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CCCCAGCTGATGCCCATGTTGGAAGAGGCTTTGCGGAGCGAGAGCCCATACCAGCGCAAAGCTGGACTCC
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GATTGTGTGCAAGGGCCTGGAGGACCCCTCGCAAGTTGTACGCAATGCTGCGCTGTTTGCCCTGGGCCAG
TTCTCAGAAAACCTACAGCCCCATATCAGCAGCTATTCAAGGGAGGTAATGCCACTGCTCCTCGCCTACT
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GAACCTAGGGCCCAAGGTGCAGCCCTACCTTCCGGAGCTTATGGAATGCATGCTGCAGCTTCTGAGGAAC

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CCCAGCAGTCCCCGGGCCAAGGAGCTGGCTGTGAGCGCCCTGGGAGCCATTGCTACGGCTGCCCAGGCCT
CGCTGCTGCCCTACTTCCCTGCCATCATGGAGCACCTGCGGGAATTCCTGTTAACAGGCCGTGAGGACCT
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CTGGCCAAACAGCACACCGACAGCTTTCAAGCAGCTCTGGGCTCACTGCCTGTTGACAAGGCTCAGGAGC
TCCAGGCTGTACTGGGCCTCTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211049 protein sequence
Red=Cloning site Green=Tags(s)

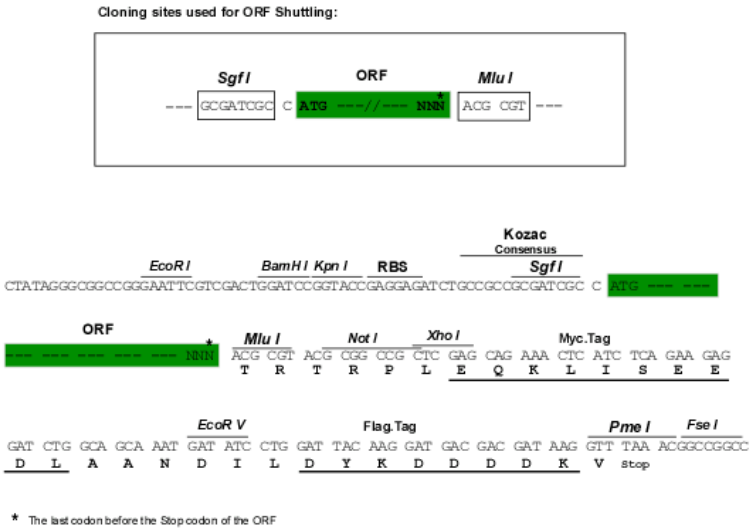
MESAGLEQLLRELLLPDTERIRRATEQLQIVLRAPAALPALCDLLASAADPQIRQFAAVLTRRRLNTRWR
RLAAEQRESLKSLILTALQRETEHCVSLSLAQLSATIFRKEGLEAWPQLLQLLQHSTHSPHSPEREMGLL
LLSVVVTSRPEAFQPHHRELLRLLNETLGEVGSPGLLFYSLRTLTTMAPYLSTEDVPLARMLVPKLIMAM
QTLIPIDEAKACEALEALDELLESEVPVITPYLSEVLTFCLEVARNVALGNAIRIRILCCLTFLVKVKSK
ALLKNRLLPPLLHTLFPIVAAEPPPGQLDPEDQDSEEEELEIELMGETPKHFAVQVVDMLALHLPPEKLC
PQLMPMLEEALRSESPYQRKAGLLVLAVLSDGAGDHIRQRLLPPLLQIVCKGLEDPSQVVRNAALFALGQ
FSENLQPHISSYSREVMPLLLAYLKSVPLGHTHHLAKACYALENFVENLGPKVQPYLPELMECMLQLLRN
PSSPRAKELAVSALGAIATAAQASLLPYFPAIMEHLREFLLTGREDLQPVQIQSLETLGVLARAVGEPMR
PLAEECCQLGLGLCDQVDDPDLRRCTYSLFAALSGLMGEGLAPHLEQITTLMLLSLRSTEGIVPQYDGSS
SFLLFDDESDGEEEEELMDEDVEEEDDSEISGYSVENAFFDEKEDTCAAVGEISVNTSVAFLPYMESVFE
EVFKLLECPHLNVRKAAHEALGQFCCALHKACQSCPSEPNTAALQAALARVVPSYMQAVNRERERQVVMA
VLEALTGVLRSCGTLTLKPPGRLAELCGVLKAVLQRKTACQDTDEEEEEEDDDQAEYDAMLLEHAGEAIP
ALAAAAGGDSFAPFFAGFLPLLVCKTKQGCTVAEKSFAVGTLAETIQGLGAASAQFVSRLLPVLLSTAQE
ADPEVRSNAIFGMGVLAEHGGHPAQEHFPKLLGLLFPLLARERHDRVRDNICGALARLLMASPTRKPEPQ
VLAALLHALPLKEDLEEWVTIGRLFSFLYQSSPDQVIDVAPELLRICSLILADNKIPPDTKAALLLLLTF
LAKQHTDSFQAALGSLPVDKAQELQAVLGLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6751_d07.zip

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.

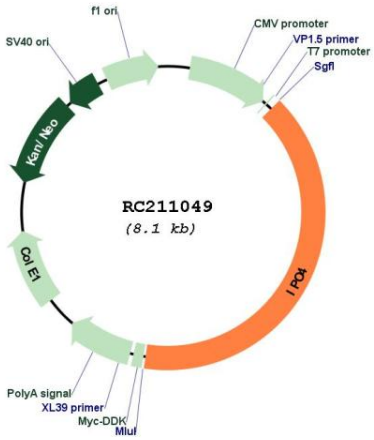
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

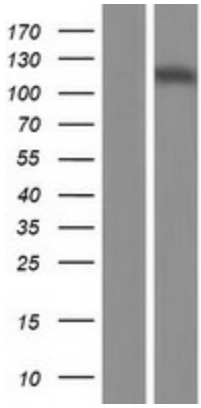
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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
MW:	118.7 kDa
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]

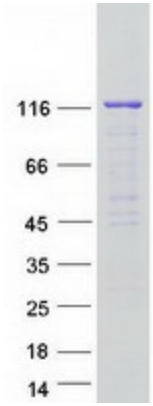
Product images:



Circular map for RC211049



Western blot validation of overexpression lysate (Cat# [LY411174]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211049 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IPO4 protein (Cat# [TP311049]). The protein was produced from HEK293T cells transfected with IPO4 cDNA clone (Cat# RC211049) using MegaTran 2.0 (Cat# [TT210002]).