

Product datasheet for **MG221096**

Irs4 (NM_010572) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Irs4 (NM_010572) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Irs4
Synonyms:	IRS-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG221096 representing NM_010572 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

ATGGCGAGTTGCTCCTTCTCTGGCCACCAAGCGCTTAGGAGACTGAGAGCCTCAGCAGCAGCAGCAGCCT
CCGCAGCTCTAGCAGCAGTGGCGACCACCCCGCTCCTTTCCTCGGAACCCGGACCGCACTATTGGGAC
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GAGGAGGACCTCCCGTCCGGGATGAAGTCTGCAAACCGCGCTACCTGAGGAAGCAGAAGCATGGGCATA
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GAAGTTCGGGCACAGTGTCCGCGCCGCGCGGCTGAGCAGAGGGCGGCCCTCCGGTGTGCGGTCCCG
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ACAAGAAAGCTGGTACTTGTCTCCTCAGCCGCTCATCCTCGAGAGCAAGCGCCGCGCTGCGGCACGCTA
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GCGGATTCTGAGGACGACGACGATGATGACGACGACATTTACGTGAGAATGGACTTTCAGACGAGACT
ACAGGAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG221096 representing NM_010572
 Red=Cloning site Green=Tags(s)

MASCSFSGHQALRRLRASAAAAAASAALAAVATTPLLSSGTRTALIGTGSSCPGAMWLSTATGSRSDSESE
 EEDLPVGDEVCKRGYLRKQKHGHRRYFVLKLETADAPARLEYRNRKFRHSVRAAAAAAEEAASGAAVP
 ALIPRRVILYQCFVSVQRADARYRHLIALFTQDEYFAMVAENESEQESWYLLLSRLILESKRRRCGTL
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 AQLPDMRGVVTDPAPTAFSGYLNVEFGVFPNPTIRLSDLLRVLPGANSIPLAGTRWPFPGSAIGSIVE
 AGEYIEVIFNPAMTPAMSFADSAICYDAQTGQIYVDPFSECCMDVLSLPGRCSEPPVVARLRREEAQER
 RRPQRSQSLFASTRAAVSAFPTDSLDRDFFAASAVIAAPAEAPLLAVSRALAVVSALAAAPSIGDVFAG
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TRTRPLE - GFP Tag - V

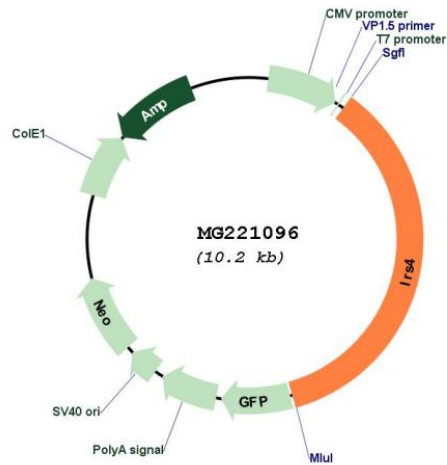
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_010572

ORF Size: 3648 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.

RefSeq: [NM_010572.2](#), [NP_034702.2](#)

RefSeq Size: 6269 bp

RefSeq ORF: 3651 bp

Locus ID: 16370

UniProt ID: [Q9Z0Y7](#)

Cytogenetics: X 62.43 cM

Gene Summary:

Acts as an interface between multiple growth factor receptors possessing tyrosine kinase activity, such as insulin receptor, IGF1R and FGFR1, and a complex network of intracellular signaling molecules containing SH2 domains. Involved in the IGF1R mitogenic signaling pathway. Promotes the AKT1 signaling pathway and BAD phosphorylation during insulin stimulation without activation of RPS6KB1 or the inhibition of apoptosis. Interaction with GRB2 enhances insulin-stimulated mitogen-activated protein kinase activity. May be involved in nonreceptor tyrosine kinase signaling in myoblasts. Plays a pivotal role in the proliferation/differentiation of hepatoblastoma cell through EPHB2 activation upon IGF1 stimulation. May play a role in the signal transduction in response to insulin and to a lesser extent in response to IL4 and GH on mitogenesis. Plays a role in growth, reproduction and glucose homeostasis. May act as negative regulators of the IGF1 signaling pathway by suppressing the function of IRS1 and IRS2.[UniProtKB/Swiss-Prot Function]