

## Product datasheet for **MC204270**

### Eif4ebp2 (NM\_010124) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Eif4ebp2 (NM\_010124) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Eif4ebp2  
**Synonyms:** 4E-BP2; 2810011119Rik; AA792569; BC010348; PHAS-II  
**Mammalian Cell Selection:** Neomycin  
**Vector:** PCMV6-Kan/Neo (PCMV6KN)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Fully Sequenced ORF:** >BC015082

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CCACGCGTCCGGCCGCTGCTGCTCCTGCTGCTGCTGAGGCTGCAGCGGAGGCCGCCGCCGCCGCCG
CTGCTGCACAAAGCCTCGAGCCCGCTCGGAGCCATGTCCGCGTGGCCGGTGGTAGCCACCAGCCAGC
CAGAGCCGCGCCATCCCCACGCGCACCGTGGCTATCAGCGACGCCGCGCAGCTACCTCAGGACTACTGCA
CCACGCCCGGGGGACGCTGTTCTCCACAACGCCGGGAGGAACACGAATCATTTATGACCAAAAGTTTCT
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GGAAGCATGCAGTTGGGATGAGGCTCAGTTTGGATGGACATCTGACTACTGCCATGTGGAAGGAGGCC
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CTCCCATGTTAGTATCTGATAATATCAGTCTCTCCTTATCAGAGGAGAGACCTTTTATTTTAAAGATGAC
TACAGACCTATTTTATAGATAAGTTTTCAGTACAATTTTGAACATAACTTTTAAACAAAACATCTTCCA
GTATTGGGAAGGTTATTTTAAAAAAAAAAAAAAAAA
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<b>Restriction Sites:</b>	RsrII-NotI
<b>ACCN:</b>	NM_010124
<b>Insert Size:</b>	363 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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="#">BC015082</a> , <a href="#">AAH15082</a>
<b>RefSeq Size:</b>	1784 bp
<b>RefSeq ORF:</b>	363 bp
<b>Locus ID:</b>	13688
<b>UniProt ID:</b>	<a href="#">P70445</a>
<b>Cytogenetics:</b>	10 32.21 cM
<b>Gene Summary:</b>	Repressor of translation initiation involved in synaptic plasticity, learning and memory formation (PubMed:16237163, PubMed:17029989). Regulates EIF4E activity by preventing its assembly into the eIF4F complex: hypophosphorylated form of EIF4EBP2 competes with EIF4G1/EIF4G3 and strongly binds to EIF4E, leading to repress translation. In contrast, hyperphosphorylated form dissociates from EIF4E, allowing interaction between EIF4G1/EIF4G3 and EIF4E, leading to initiation of translation (PubMed:17029989, PubMed:20347422, PubMed:23172145). EIF4EBP2 is enriched in brain and acts as a regulator of synapse activity and neuronal stem cell renewal via its ability to repress translation initiation (PubMed:20347422, PubMed:24139800, PubMed:23172145). Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways (PubMed:8939971).[UniProtKB/Swiss-Prot Function]