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# Product datasheet for RN215605

## Eif6 (NM_001037352) Rat Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | Eif6 (NM_001037352) Rat Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | Eif6 |
| **Synonyms:** | eIF-6; Itgb4bp |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Fully Sequenced ORF:** | >RN215605 representing NM_001037352<br>Red=Cloning site Blue=ORF Orange=Stop codon<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCCGCGATCGCC<br><br>ATGGCGGTCAGAGCGTCGTTCGAGAACAACTGTGAGGTCGGTTGTTTTGCCAAACTCACTAACACCTACT<br>GCCTGGTGGCCATCGGAGGGTCAGAGAACTTCTACAGTGTGTTCGAGGGCGAGCTCTCCGATACCATTCC<br>TGTAGTGCACGCATCCATCGCCGGCTGCCGAATCATCGGGCGCATGTGTGTGGGGAACAGGCATGGGCTG<br>CTGGTACCCAACAACACCACCGACCAGGAGCTGCAGCATATCCGCAACAGCCTTCCGGATTCAGTGCAGA<br>TACGGCGGGTAGAGGAGCGGCTCTCAGCCCTTGGCAATGTCACCACCTGCAATGACTATGTGGCCTTGGT<br>CCACCCAGACTTGGATAGGGAGACAGAAGAAATCCTGGCTGATGTGCTCAAGGTGGAAGTCTTCAGGCAG<br>ACGGTTGCTGACCAGGTGTTAGTTGGAAGCTACTGTGTCTTCAGTAATCAAGGAGGTCTGGTGCACCCTA<br>AAACTTCGATCGAGGATCAGGATGAGCTGTCCTCCCTTCTTCAGGTTCCCCTTGTGGCAGGCACTGTGAA<br>CCGAGGGAGCGAGGTGATTGCTGCCGGGATGGTAGTGAATGATTGGTGTGCTTTCTGTGGCCTGGACACG<br>ACCAGCACAGAGCTGTCAGTGGTGGAGAGTGTCTTCAAGCTGAATGAAGCCAAACCTAGCACCATTGCCA<br>CCAGCATGCGGGACTCCCTCATTGACAGCCTCACATGA<br><br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT<br>ACAAGGATGACGACGATAAGGTTTAA |
| **Restriction Sites:** | SgfI-MluI |
| **ACCN:** | NM_001037352 |
| **Insert Size:** | 738 bp |

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| **OTI Disclaimer:** | 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). |
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_001037352.1, NP_001032429.1 |
| **RefSeq Size:** | 1254 bp |
| **RefSeq ORF:** | 738 bp |
| **Locus ID:** | 305506 |
| **UniProt ID:** | Q3KRD8 |
| **Cytogenetics:** | 3q42 |
| **Gene Summary:** | Binds to the 60S ribosomal subunit and prevents its association with the 40S ribosomal subunit to form the 80S initiation complex in the cytoplasm. Behaves as a stimulatory translation initiation factor downstream insulin/growth factors. Is also involved in ribosome biogenesis. Associates with pre-60S subunits in the nucleus and is involved in its nuclear export. Cytoplasmic release of TIF6 from 60S subunits and nuclear relocalization is promoted by a RACK1 (RACK1)-dependent protein kinase C activity. In tissues responsive to insulin, controls fatty acid synthesis and glycolysis by exerting translational control of adipogenic transcription factors such as CEBPB, CEBPD and ATF4 that have G/C rich or uORF in their 5'UTR. Required for ROS-dependent megakaryocyte maturation and platelets formation, controls the expression of mitochondrial respiratory chain genes involved in reactive oxygen species (ROS) synthesis. Involved in miRNA-mediated gene silencing by the RNA-induced silencing complex (RISC). Required for both miRNA-mediated translational repression and miRNA-mediated cleavage of complementary mRNAs by RISC. Modulates cell cycle progression and global translation of pre-B cells, its activation seems to be rate-limiting in tumorigenesis and tumor growth.[UniProtKB/Swiss-Prot Function] |

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