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Product datasheet for MC220714

Ect2 (NM_001177626) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ect2 (NM_001177626) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ect2
Synonyms:	AI528536; mKIAA4037
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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Fully Sequenced ORF:

>MC220714 representing NM_001177626
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGACGACAGCGTGTTACCATCTCCTTCTGAGATAACTAGCTTGGCAGACTCTTCAGTGTTTGATT
CTAAAGTTGCTGAAATGTCCAAGGAAAACTTGTGCTTGGCGTCTACTTCAAATGTTGATGAAGAAATGCC
GCAGGTTGAAGCAAGAGTGATAATGGTCCAGGATGCTGGGAAACAAGAAGAACTTCTAAAGGCCTTAAAG
GAAATGAAAGTGCCCTGTGTAAAGATGGACTCAATGGAAGAATTTGAAAGTTTGGATTCCCCAGAATTTG
AGAATATATTTGTAGTTACTGACTTCCAGAATTCTGTCTTCAATGACTTATACAAGGCTGATTGTAGGAT
TGTTGGGCCACCAGTTATACTCAACTGTGCACAAAGGGGAGAGCCCTTGCCGTTTTCCTGCCGGCCGCTG
TATTGTACGAGTATGCTGAACCTGGTGCTCTGCTTCACTGGATTCAGGAAGAAGGAGGAGCTTGTCAAAT
TGGTGACGTTGGTTCATCATATGGGTGGAGTTATTCGAAAAGAGTGTAATTCCAAAGTAACACATCTGGT
GGCAAATTGTACACAAGGCGAAAAATTTAGGGTTGCTGTGAGCCTGGGCACTCCAATTATGAAGCCAGAA
TGGATTTATAAAGCGTGGGAAAGACGCAATGAACAGTGTTTCTGTGCAGCAGTTGATGACTTTAGAAATG
AATTTAAAGTTCCTCCATTCCAAGATTGCATTTTAAGTTTCCTGGGATTTTCAGATGAAGAGAAACATAG
TATGGAAGAAATGACTGAAATGCAAGGAGGTAGCTATTTACCAGTTGGGGATGAAAGGTGCACTCACCTT
ATTGTTGAAGAGAATACAGTAAAGGACCTTCCATTCGAACCTTCAAAGAAACTTTTTGTTGTCAAGCAAG
AGTGGTTCTGGGGAAGCATTCAGATGGACGCTCGTGCAGGAGAGACTATGTATTTGTATGAAAAGGCTAA
TACTCCTGAGCTCAAGAAATCGGTGTCTCTGCTTTCTCTAAGTACTCCAAACAGCAACCGCAAGAGACGG
AGATTGAAAGAGACCCTGGCTCAGCTCTCCAGGGAGACTGACCTCTCTCCTTTCCCTCCCCGGAAGCGGC
CCTCAGCTGAGCACTCTCTTTCTATTGGCTCACTCCTGGATATCTCCAACACACCCGAGTCCAGCATCCA
CTATGGAGAAACACCGAAGTCCTGTGCTAAGTCTTCTAGAAGTTCTACTCCAGTTCCTCCAAAGCAGTCA
GCCAGGTGGCAGGTGGCGAAAGAGCTCTACCAGACTGAGAGCAATTATGTCAATATACTGGCCACAATCA
TTCAATTATTTCAGGTGCCCTTAGAAGAAGAAGGACAGCGTGGTGGGCCTATTCTTGCACCTGAGGAGAT
CAAGACTATTTTTGGGAGCATCCCAGATATCTTTGATGTGCATATGAAGATCAAGGATGATCTTGAAGAC
CTTATTGCTAACTGGGATGAGAGCAGAAGTATTGGTGACATCTTTCTTAAATATGCAAAAGATTTGGTAA
AAACCTACCCTCCGTTTGTAAACTTCTTTGAAATGAGCAAGGAAATGATCATTAAATGTGAGAAACAAAA
GCCCAGATTTCATGCTTTCCTCAAGATAAATCAAGCTAAACCAGAATGTGGACGACAGAGCCTTGTGGAA
CTTCTCATCCGGCCAGTGCAGAGGCTACCCAGTGTCGCTTTACTTTTAAACGATCTTAAAAAGCATACAG
CTGATGAAAATCCAGACAAAAGCACTTTAGAAAAAGCTATTGGATCACTAAAAGAAGTAATGACACATAT
CAATGAGGATAAGAGAAAAACAGAAGCACAGAAGCAAATTTTTGATGTTGTTTATGAAGTAGATGGATGC
CCAGCTAATCTCTTATCTTCTCATCGGAGCCTGGTGCAACGAGTGGAAACGGTTTCCCTTGGTGAGCACC
CTTGCGACCGAGGAGAACAAGTCACTCTCTTCCTCTTCAATGACTGCCTCGAGATAGCAAGAAAGCGGCA
CAAGGTTATTGGCACTTTTAGAAGTCCTCACGACCGCACCCGGCCCCCCGCTTCTCTGAAGCACATTCAT
CTCATGCCTCTTTCTCAGATTAAGAAGGTGCTGGACATCCGAGAGACAGAAGATTGTCACAATGCCTTTG
CCTTGCTTGTAAGGCCACCAACAGAACAGGCCAATGTACTGCTCAGCTTCCAGATGACGTCAGAGGAGCT
TCCAAAGGAGAGCTGGCTGAAGATGCTGTGCCGACATGTAGCCAACACCATTTGTAAGGCAGATGCTGAG
AATCTTATGTATGTGGCTGATCCAGAATCCTTTGAAGTAAATACAAAAGATATGGATAGTACATTGAGTC
GAGCATCTAGAGCAATAAAGAAGACTTCAAAAAAGGTTACAAGGGCATTCTCTTTTTCCAAAACTCCCAA
GAGAGCCCTGCGGATGGCTCTTTCATCATCCCATAGCTCAGAGGGAAGGAGTCCTCCGAGCAGTGGCAAG
CTTGCTGTGAGCCGTCTGTCCAGCACATCATCCTTAGCAGGTATTCCATCTCCCTCCCTTGTCAGCCTCC
CTTCTTTCTTTGAACGGAGAAGTCATACATTAAGTCGATCTACAACTCACTTGATATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001177626

Insert Size:	2649 bp
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. 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_001177626.1, NP_001171097.1
RefSeq Size:	4040 bp
RefSeq ORF:	2649 bp
Locus ID:	13605
UniProt ID:	Q07139
Cytogenetics:	3 A3

Gene Summary: Guanine nucleotide exchange factor (GEF) that catalyzes the exchange of GDP for GTP. Promotes guanine nucleotide exchange on the Rho family members of small GTPases, like RHOA, RHOC, RAC1 and CDC42. Required for signal transduction pathways involved in the regulation of cytokinesis. Component of the centralspindlin complex that serves as a microtubule-dependent and Rho-mediated signaling required for the myosin contractile ring formation during the cell cycle cytokinesis. Regulates the translocation of RHOA from the central spindle to the equatorial region. Plays a role in the control of mitotic spindle assembly; regulates the activation of CDC42 in metaphase for the process of spindle fibers attachment to kinetochores before chromosome congression. Involved in the regulation of epithelial cell polarity; participates in the formation of epithelial tight junctions in a polarity complex PARD3-PARD6-protein kinase PRKCQ-dependent manner. Plays a role in the regulation of neurite outgrowth. Inhibits phenobarbital (PB)-induced NR1I3 nuclear translocation. Stimulates the activity of RAC1 through its association with the oncogenic PARD6A-PRKCI complex in cancer cells, thereby acting to coordinately drive tumor cell proliferation and invasion. Also stimulates genotoxic stress-induced RHOB activity in breast cancer cells leading to their cell death.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (3) uses an alternate donor splice site at the 5' terminal non-coding exon, and is missing an in-frame coding exon compared to variant 1, resulting in a shorter isoform (2) lacking an internal protein segment compared to isoform 1. Variants 2 and 3 encode the same isoform.