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Product datasheet for MC225164

Numa1 (NM_133947) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Numa1 (NM_133947) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Numa1
Synonyms:	6720401E04Rik; AA764025; AL022610; AU014979; NuMA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

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>MC225164 representing NM_133947
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACACTCCATGCCACCCGGGCAGCTACGCTCCTTTCTTGGGTGAACAGTCTGCATGTTGCTGACCCCG
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AGAGGGGCAACAAATCCTACAGCAGCCACTACCGGAAAGACTAGACTTTGTTTGCAGTTTTCTACAGAAA
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GCAGTTTGAATATGGGGTTCAGGCTGAGTTAGCGGTCATCCTGAAGTTTATGCTGGATCATGAGGAGTCG
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AAGAGCTTTCTCCACCCAGCCACCAGACCAAGAGGAAGATTCGCTTCCTAGAAATACAGAGGATTGCTTC
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TTGACAGCCTGGATCTGAGTTTGGAGGAGGGAACCCCATGCAGTGTGGCTAGCAAGCTGCCTCGTACCCA

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ACCAGATGGTACCAGTGTCCCTGGAGAGCCAGCTTCACCTATCTCCCAGCGCCTGCCCCCCAAAGTGGAA
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TGGCACTGCTACTGTTGCCACCACTCCTCGGGCCAAGGGCAAGGTGAAGCATTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_133947
Insert Size:	6285 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_133947.3, NP_598708.3
RefSeq Size:	7214 bp
RefSeq ORF:	6285 bp
Locus ID:	101706
UniProt ID:	E9Q7G0
Cytogenetics:	7 E2

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Gene Summary: Microtubule (MT)-binding protein that plays a role in the formation and maintenance of the spindle poles and the alignement and the segregation of chromosomes during mitotic cell division (PubMed:19255246, PubMed:24109598, PubMed:26765568). Functions to tether the minus ends of MTs at the spindle poles, which is critical for the establishment and maintenance of the spindle poles (PubMed:26765568). Plays a role in the establishment of the mitotic spindle orientation during metaphase and elongation during anaphase in a dynein-dynactin-dependent manner (PubMed:26765568). In metaphase, part of a ternary complex composed of GPSM2 and G(i) alpha proteins, that regulates the recruitment and anchorage of the dynein-dynactin complex in the mitotic cell cortex regions situated above the two spindle poles, and hence regulates the correct oritentation of the mitotic spindle (PubMed:24109598, PubMed:26765568). During anaphase, mediates the recruitment and accumulation of the dynein-dynactin complex at the cell membrane of the polar cortical region through direct association with phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), and hence participates in the regulation of the spindle elongation and chromosome segregation. Binds also to other polyanionic phosphoinositides, such as phosphatidylinositol 3-phosphate (PIP), lysophosphatidic acid (LPA) and phosphatidylinositol triphosphate (PIP3), in vitro (By similarity). Also required for proper orientation of the mitotic spindle during asymmetric cell divisions (PubMed:26765568). Plays a role in mitotic MT aster assembly. Involved in anastral spindle assembly. Positively regulates TNKS protein localization to spindle poles in mitosis. Highly abundant component of the nuclear matrix where it may serve a non-mitotic structural role, occupies the majority of the nuclear volume (By similarity). Required for epidermal differentiation and hair follicle morphogenesis (PubMed:26765568).[UniProtKB/Swiss-Prot Function]

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