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# Product datasheet for MC224772

## Kif14 (NM_001081258) Mouse Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | Kif14 (NM_001081258) Mouse Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | Kif14 |
| **Synonyms:** | D1Ertd367e; E130203M01 |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Cell Selection:** | Neomycin |
| **Fully Sequenced ORF:** | >MC224772 representing NM_001081258<br>Red=Cloning site Blue=ORF Orange=Stop codon<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCCGCGATCGCC<br><br>ATGTCAGTACACACTTCGCATAGCAGACACAACATCGGAAGCCTGGAGGTTTCTTCTTCACAGAAGATTT<br>CAGCATCCAGTGGCCTCGTCCACAGCAGCCGGCTGGAACTGCACTTGAAGGCAGATATGTCAGAGTGTGA<br>GAATCATGATCCATTCGTGAATGCTGGAAGTAAAACCATCGACATAAATAGCACTTATGTTATCTCTGCC<br>TGTAAAAAAACAAGAGAGACTCCTGTTACCTCTGACCCCCGGAGACTGAGCCTCCAGAGAAGGGCTACTT<br>GTGGGGACAGAGAGTCGTCTTTACTTGGAAGTGAGTTGGGAAACAGAAGAACAGCAGACACAAGTCTTAG<br>GTTACAACGGCGGCACGGTAGAGCGGATTATGTGGGAAAGTGGGAGACATTGAATCCTGTGGGAGGTAAC<br>CCAGGAAGTGACTCTGCCTCCCAGGCATCGAGGACAGAAGCAAAGGGTGTAAATAATGATACCCGTGTCC<br>TGTCGTCTGTCGTCTCCGTGAAAGACTCCAACGACACCGGGTTGACGAGATGCAAAGACCCAGGTCCTCC<br>CGTTGGTGCCTCTAATGAAAAGGTGACAGTTAAGGACACAAACAGTAGAGCGCCTGTGGGTTCCCAGCGT<br>CAGACTGAAGCTATGAGATCAGGACACTTAGTGGTGCAACTGACCGAGAGCAAGTCTGATACCCCAGTGT<br>CAGGAGGAAGAAACTCACACCGTGGGAATGCTGGCAAGGACACTGCTAAACAAGTCGGTACATTTGGAAG<br>CTCAGATACAAGAACCCCAGTGAAATGTGTTTTAGAACACAGATGGACACCAAGGCATGACCTGCCTCCA<br>CCGAAAAGCCCAGCTTTATCCACACTGAAAAACAGGATTGCAAGCCCTCGAGTTAAACCGAGGCCCAAAA<br>GTTCTCTTTTTGCAAATAAAAGGGAAAGCTCACGAGAAAGCACACTCCCTCCAGAAGAAAACAGTCTAGT<br>TCAGAAGACCTTTACAGAGCCAGACTCCTTAAAAGTAGAGAACAGTCAGGTGACCGTGGCGGTGCGCGTG<br>AGGCCTTTCAGCAAAAGAGAGAAGACTGAGAAAGCATCCCAGGTTGTCTTCACCAATGGGGAAGAGATAA<br>CTGTGGAGCATCCCGATATGAAACAAGTTTACTCTTTTATTTACGATGTTTCCTTTTGGTCTTTTGATGA<br>ATGTCACCCTGGCTATGCCAGCCAGACAACTGTATATGAGACACTAGCTGCACCACTCCTGGACAGAGCT<br>TTTGAAGGCTATAACACCTGTCTCTTTGCTTATGGCCAGACTGGCTCTGGAAAGTCCTATACGATGATGG<br>GGCTTAATGAAGAACCAGGAATAATTCCTAGATTCTGTGAAGATCTCTTTGCTCAAATAGCCAAAAAACA<br>AACCTCAGAGGTCAGCTACCATCTTGAAATGAGCTTCTTTGAAGTTTATAATGAAAAAATTCATGATCTT<br>CTGGTTTGTAAAGGTGAAAATGGGCAGAGGAAACAACCACTGCGCGCGAGGGAGCACCCTGTTTCTGGAC |



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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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| **Restriction Sites:** | SgfI-MluI |
| **ACCN:** | NM_001081258 |
| **Insert Size:** | 4875 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.<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_001081258.1, NP_001074727.1 |
| **RefSeq Size:** | 8770 bp |
| **RefSeq ORF:** | 4875 bp |
| **Locus ID:** | 381293 |
| **Cytogenetics:** | 1 59.8 cM |
| **Gene Summary:** | Microtubule motor protein that binds to microtubules with high affinity through each tubulin heterodimer and has an ATPase activity (PubMed:24949858). Plays a role in many processes like cell division, cytokinesis and also in cell proliferation and apoptosis (By similarity). During cytokinesis, targets to central spindle and midbody through its interaction with PRC1 and CIT respectively (By similarity). Regulates cell growth through regulation of cell cycle progression and cytokinesis. During cell cycle progression acts through SCF-dependent proteasomal ubiquitin-dependent protein catabolic process which controls CDKN1B degradation, resulting in positive regulation of cyclins, including CCNE1, CCND1 and CCNB1 (By similarity). During late neurogenesis, regulates the cerebellar and cerebral cortex development and olfactory bulb development through regulation of apoptosis, cell proliferation and cell division (PubMed:23308235, PubMed:24931760). Also is required for chromosome congression and alignment during mitotic cell cycle process (By similarity). Regulates cell spreading, focal adhesion dynamics, and cell migration through its interaction with RADIL resulting in regulation of RAP1A-mediated inside-out integrin activation by tethering RADIL on microtubules (By similarity).[UniProtKB/Swiss-Prot Function] |