

## Product datasheet for **MC225445**

### Syne1 (NM\_001079686) Mouse Untagged Clone

#### Product data:

<b>Product Type:</b>	Expression Plasmids
<b>Tag:</b>	Tag Free
<b>Symbol:</b>	Syne1
<b>Synonyms:</b>	8B; A330049M09Rik; BE692247; C130039F1IRik; CPG2; mKIAA1756; myne-1; Myne1
<b>Mammalian Cell Selection:</b>	Neomycin
<b>Vector:</b>	pCMV6-Entry (PS10001)
<b>E. coli Selection:</b>	Kanamycin (25 ug/mL)
<b>Fully Sequenced ORF:</b>	>MC225445 representing NM_001079686 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTTTCCTCAGGAGCTGGCGCAGAAAATCAAGGGCTACCAGGAGCAGATCGACTCTTTGAATTCAAAAT  
GCAAGATGCTGACGATGAAAGCCAAGCACGCAACTATGCTGCTGACTGTGACCGAGGTCGAGGGACTGGC  
TGAAGGGACCAGGATCTGGACCGGAGCTCCACCCTACGCCCTCAGCCCACCCTCTGTGGTCATGATG  
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GGTGGCCTTGGTAAAACTGATGTGTTATCCAGGAGTTGGGGATTGCTGAAGACCAGATGAGAGTGA



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CACTACAAGACATGTCTGCCAACTCTGGTGAATGCTGAAGGTTGAGATTGTCTAGAAGCCAAAGAAAA  
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CGTTCTGACCCAGGCCAGAACGGGTGGGTGAGCCTTCTGTTCGGATCCTCCGGGCAGCTTCTCCCT  
TTCAGTGTCTCTGCTGCTGCTTATTGGACTCACCTGCCTTGTACCCATGTGAGAGAAAGACTACAGCTG  
TGCCCTCTCAACAACCTTGGCCGATCCTTCCATCCGATGCTCAGATATACCAACGGTCTCTCCACTC  
TGA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTAA

<b>Restriction Sites:</b>	Sgfl-RsrII
<b>ACCN:</b>	NM_001079686
<b>Insert Size:</b>	9033 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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_001079686.1</a></u> , <u><a href="#">NP_001073154.1</a></u>
<b>RefSeq Size:</b>	10876 bp
<b>RefSeq ORF:</b>	9033 bp
<b>Locus ID:</b>	64009
<b>UniProt ID:</b>	<u><a href="#">Q6ZWR6</a></u>
<b>Cytogenetics:</b>	10 A1

**Gene Summary:**

Multi-isomeric modular protein which forms a linking network between organelles and the actin cytoskeleton to maintain the subcellular spatial organization. As a component of the LINC (Linker of Nucleoskeleton and Cytoskeleton) complex involved in the connection between the nuclear lamina and the cytoskeleton. The nucleocytoplasmic interactions established by the LINC complex play an important role in the transmission of mechanical forces across the nuclear envelope and in nuclear movement and positioning. May be involved in nucleus-centrosome attachment. During interkinetic nuclear migration (INM) at G2 phase and nuclear migration in neural progenitors its LINC complex association with SUN1/2 and probably association with cytoplasmic dynein-dynactin motor complexes functions to pull the nucleus toward the centrosome; SYNE1 and SYNE2 seem to act redundantly in cerebellum, midbrain, brain stem, and other brain regions except cerebral cortex and hippocampus. Required for centrosome migration to the apical cell surface during early ciliogenesis. May be involved in nuclear remodeling during sperm head formation in spermatogenesis; a probable SUN3:SYNE1/KASH1 LINC complex may tether spermatid nuclei to posterior cytoskeletal structures such as the manchette.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) differs in the 5' UTR and 5' coding region and lacks a large portion of the 5' coding region found in variant 4. These differences result in the use of an alternate start codon, compared to variant 4. The encoded isoform (3) is shorter and has distinct N-terminus compared to isoform 4.