

## Product datasheet for **RN213849**

### **Mief1 (NM\_001007709) Rat Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mief1 (NM_001007709) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Mief1
Synonyms:	Smcr7l
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >RN213849 representing NM\_001007709  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCAGGCGCTGGTGAGCGCAAAGGCAAGAAGGATGACAATGGCATTGGAACGGCCATTGATTTTGTGC  
 TCTCCAATGCCCGCTGGTGTGGGCGTGGGTGGAGCAGCCATGCTGGGCATCGCCACATTGGCAGTTAA  
 GCGGATGTACGACCGGGCAATTAGTGCCCTACCAGCCCCACCCGCTAAGCCATTTCAGGAAAGAGGAGC  
 TGGGAGGAACAACTGGATGGGCTCTCTCGACTATTGAACAGGGACATGAAGACAGGTCTGAGCCGGT  
 CCCTGCAGACCCTTCCCACAGACTCTTCTGCCTTTGACACAGATACATTCTGCCACCCCGCCAAACC  
 TTTGGCCAGGAGGGCCAGGTAGACTTGAAGAAGTCACGACTCCGCATGTCCTGCAGGAGAAACTTCTT  
 TCTTACTACCGGAACCGTGCAGCCATCCCTGCTGGAGAGCAGGCTCGAGCCAAGCAAGCTGCGGTGGACA  
 TATGTGCTGAGCTGCGGAGCTTCTGCGGGCAAGCTGCCTGACATGCCACTCCGGGACATGACTTGGAG  
 TGGCAGCCTCTATGACGATCTGCAGGTGGTGCAGCTGACCATATCCAATCATTGTCCCTCGTGTCTG  
 GAGCAGAACTGTGGTCTGCATACCTGGGAGGACACCATCATGAATATCCCTGGTTTCTTCTGGTCC  
 GTCGTGAGAACCAGAGTACTTCTCTGTTAGCAGTTATTGGGACCGCTGTGTGTAGGTGGCTACCT  
 CTCCCAAAGACAGTGGCAGACACCTTTGAGAAGTGGTGGCAGGCTCCATCAACTGGCCAGCCATAGGG  
 TCCCTCTTAGACTATGTGATCCGACCAGCACCACCCAGAGGCCCTGACACTAGAAGTGCAGTATGAGA  
 GGGACAAACATCTTGTATTGACTTCTGCCATCAGTGACCCTTGGTGACTGTCTTGGTGGCCAGACC  
 ACACCGTTAGCTCAGTATGACAACCTGTGGCGGCTGAGCCTTCGCTGCTGAGACGGCAGCTTACGG  
 GCTTTGGACCAGGCGGACTCCGGCTCCGGTCTCTGTGCCTCAAGATCCTCAAGGCCATATGCAAGTCCA  
 CTCCAGTCTGGCCACCTCACTGCCAGCCGTAACCAATGTCATCTCCACTTGTCCCAGGAGGAGGC  
 TGACTGGTCTCCAGACATGTTGGCCGACCGCTTCTACAGGCCCTGAGGGGACTCATCAGCTACTTGGAG  
 GCTGGAGTCTTGCCAGTGCCCTGAACCCAAAGGTGAACCTATTTGCAGAGCTCACCCCTCACGAGATAG  
 ATGAATTGGGGTACACCCTACTGCTGTTGTCTGAGCCGGAGGTGCTGCTGCAGAGCTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_001007709
- Insert Size:** 1392 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\\_001007709.1](#), [NP\\_001007710.1](#)

RefSeq Size: 2150 bp

RefSeq ORF: 1392 bp

Locus ID: 315141

UniProt ID: [Q5XIS8](#)

Cytogenetics: 7q34

**Gene Summary:** Mitochondrial outer membrane protein which regulates mitochondrial fission. Promotes the recruitment and association of the fission mediator dynamin-related protein 1 (DNM1L) to the mitochondrial surface independently of the mitochondrial fission FIS1 and MFF proteins. Regulates DNM1L GTPase activity and DNM1L oligomerization. Binds ADP and can also bind GDP, although with lower affinity. Does not bind CDP, UDP, ATP, AMP or GTP. Inhibits DNM1L GTPase activity in the absence of bound ADP. Requires ADP to stimulate DNM1L GTPase activity and the assembly of DNM1L into long, oligomeric tubules with a spiral pattern, as opposed to the ring-like DNM1L oligomers observed in the absence of bound ADP. Does not require ADP for its function in recruiting DNM1L (By similarity).[UniProtKB/Swiss-Prot Function]