

## Product datasheet for RN212281

### Plekhm1 (NM\_001009677) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Plekhm1 (NM_001009677) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Plekhm1
Synonyms:	MGC94075
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN212281 representing NM_001009677 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTCTCAGTGGAGAATGGCCTGGACCCTCGGGCTGCCATCCAGGTCATCAAGAAGAAGCTAGTGGGAT  
CTGTGAAGGCCCTGCAGAAACAGCATGTGTCTTGACACAGTGGTCACCAGTGAAGATGGAGATGCTAA  
CACCATGTGCAGTGCCCTGGAGGCCGTGTTTCATCCATGGCTTGCATGCCAAGTACATCCGTGCTGAGGCT  
GGCGGCAAAGGAAGAAGCACACTCATCAGAAGCCTCTGCCTCAGCCTGTCTTCTGGCCCTTCTGAAAG  
CTGTCACCCACAACACATTATCTCAGACTTGGAGCACCTGGTCTTCATCAATACAGACGTAGGCCGCTG  
CCGGGCCCTGGCTGCGGTTGGCCCTCAATGATGGGCTGATGGAGTGTACCTGAAGTTGCTCCTGCAGGAA  
CCTGCACGGTTGTGCGAGTACTATCAGCCACGGCCCTGCTTCGAGATGCTGAGGAAGCCGAGTTCTCC  
TGAGCTTCTCCAAGGACTAACATCCTTGTCTTTTGAAGTCTCCTACAAGTCAAGTCAAGTCAAGTCAAGT  
GACTCAGCCACTGTCTCTCTCTGGGCTTTGCCCTCTCTGAACTGGACCCTCTCACTGTCTCTGGT  
GCAGACTGCAACGGAAGGAGTCTCTGGATTCCATTTCCATTCTCAGGCTCTGAGGACATCGAAGTCC  
AACACTCAGGCCATAAGATCCGCAGGGACAGGAAGCTCACCGCCTCTCCCTCAGCCTGGACACAGCCAG  
CTCATCCCAGCTATCCTGCAGCCTAAATCTGACAGCTGCCTGCTCAAGAGAATGGTCCAAGAGTCCA  
GACCCTCTGAGGAACCCATGTCTACGACTCAGATCTGGGCACAGCAAATGCTGATGACTGACAGT  
CTCTGCAAGAGGTGTTGTCGGAATTCAGCAAAGCCAGGTAATTTCTGCACCAAGCAGCGGACCAAGCCA  
AGAGTCAGACACCCCATGTTCCAGACCCCTCTCCCTCCACAGCCTAGCTAACAGCACACACCTGCTC  
TTTGAAGGATCTGAAGAGCCCTTCTGCCCATACATCCTCTGGGACTTCAAGTGGCCACAAGCATCAGC  
CCCAGGAGAGTCCAGACATGCAGCCGCTAGGCACTGCCAAGCTGGCCCTGCTGGGAGCACTTCAAGCA  
GCAGCCATCTAGTCCCGTGGCCGGAGCAGCTGACCAAGGAAGTGAAGCTTGAAGGCCCTGGAATATGGC  
AGAGTTGGACCGAAGCTTGTGGTTTCTCTCCTACGAGTCCGAAAGGCAAGAGCTGGATTCTGAAGATG  
ACTTCTGCCGACCTCCAAGGAGCATGCTCTGAAGAACACTTCAGATCTTTGCATATCTCCTCTGCAAGG  
GACTCCAGAGTTGAGGACTGCTCTCCACGGCCGTTTTCTCAAGGACCAAGAAAGAGCTGCTCCCTGGG



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GCCTTAGACAAAGCGTGTGTGTCCTCGCTGGACTIONACAGAAATGCCAGACAGCTCCATCTCCAGCGGTGACACAAGACCATAAAAACCTTCTGTGTGGTGCATCGAAGGCAGATGGGGCTCTAACCATTCCGGGGCCTCATGAAGCTGGGCACAGTAGCCCGGCGAGGAGCCATGGGCATCTGGAAGGAATCTTTTGTGAGCTGTCCACTGGAGCTCCGCCTACCTGAGTGACGAGGAGCGCACCTGTGTGGAGAGCTGCTCCCTGCTACGGTGTGAGGGCCGTGGGACCAGCACACAGCGATGGACGTTTTGAGTTGGTCTTCCGGCAAGAAGCTGGCTCTCCGTGCCTCCTCCAGGACGAGGCTGAGGACTGGCTTGACCCTGTGCGGGAGGCTCTGCAGAAGGTGCGCCCTCAGCAGGAGGAGTGGTGAATATCCAGTACCCAGACCAGGCTGAGGATCCCCAGAGGGCCACAGACAACCTTCCCCCTATTCAGCCCTGCTCCAGAACATGCAGGTGCACAGGGAATACAGCCAACTGGACATCTGCCAGGTTCCAGAGCCAGATGCTATCAAAGAGTCTTTTTGTACCTGTATGCAGACCGGACCTGGATTCCCTATATCTTTTCCCTGTCTTGGAGTCTCTGAAATGTTTCCGTGTGAGAAACAATGAGAAGATGCTAAGTGATAGCCATGGAGTGGAGACCATCCGGGACATCTGCCAGACACCAGCCTTGGGGGCCAGCCTTCTTCAAATCATCACGGCCAAGGCTGTCTCAAATGCAGGCCAAGAACACTIONGAGGAGGCCGCCACTGGAGAGACCTAGTCAGGAAAGTCTGGCGTCTTACTTAGAGTCAGTTCCAGGAGGCTGTGACACTTGCTGGAGTCTGGATGAAAACGTGTCAGGAGGCTCTGAAGTTGCCACCAGGGAGAATGGCTTCTGCTACAGTACCTTGTGGCCATCCCGACCGAGAAGGGCCTCGACTCCAGGGCTGCTTCTGTGCAGGTTGCTCCCGGCAGATCGGGTCTCCTTTGTACGACCTAAGCTCTGTGCCTTCTCTGGCTATATTACTGTGACTTCTGCCACC AAGACGATGCCTCGGTGATTCCAGCCAGAATCATTCAAACTGGGACCTCACAAGCGCCCGGTCTGCCGCGAGGCCCTGAAGTTCCTGGCCAGATCCGGGCCAGCCCTCATCAACCTGCAGCTGGTGAACGCCTCTGTATAGAGCATGTAGAGCGCATGCACCTCATTGGCAGGAGCCGGGAGCAGCTGAAACTTCTGGGGACTACCTGGGCCTGTGCCAAGTGGTGTCTGAAGGAGTTGAGCAAAAGGCTAAGCCACAGGAATTACCTTTGGAGTCTCCTCACAATTCAGTGTGTGACCTCCAGCAGATTGCAGAGGGGTGTATGAAGGATTCCTAAAGCCCTGATTGAATTCGCCTCCAGCATGTCTACCCTGTGACCTGTGCACCCAGCGAGGCTTCATCTGCCAGATCTGCCACCACAGGACATCATTTCCCTTTGAGTTTGACACCACAGTCAGGTGTGCTGAATGCAGAACTGTCTTCCATCAGAGCTGCCAGGCTGTGGTGGGAAGGGCTGTCCCGCTGTGCCGCCGCGCAAGTACCAGGAACAGAACACTIONGTCAGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_001009677

**Insert Size:**

3180 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\\_001009677.1](#), [NP\\_001009677.1](#)

RefSeq Size: 5050 bp

RefSeq ORF: 3180 bp

Locus ID: 303584

UniProt ID: [Q5PQS0](#)

Cytogenetics: 10q32.1

**Gene Summary:** Proposed to act as a multivalent adapter protein that regulates Rab7-dependent and HOPS complex-dependent fusion events in the endolysosomal system and couples autophagic and the endocytic trafficking pathways. Required for late stages of endolysosomal maturation, facilitating both endocytosis-mediated degradation of growth factor receptors and autophagosome clearance. Seems to be involved in the terminal maturation of autophagosomes and to mediate autophagosome-lysosome fusion (By similarity). Positively regulates lysosome peripheral distribution and ruffled border formation in osteoclasts (PubMed:17404618). May be involved in negative regulation of endocytic transport from early endosome to late endosome/lysosome implicating its association with Rab7. May have a role in sialyl-Ix-mediated transduction of apoptotic signals (By similarity). Involved in bone resorption (By similarity).[UniProtKB/Swiss-Prot Function]