

## Product datasheet for **MR227127**

### Phex (NM\_011077) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phex (NM_011077) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Phex
Synonyms:	Gy; HPDR; HPDR1; Hyp; PEX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR227127 representing NM\_011077  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGCAGAAACAGGGAGCACCATTGGAGACTGGAAAGGGACCAACCGAGGCATTCGGATTGCACCTGG  
 CCCTGTTTATTGGTGGCACCCCTGGTGTGGGCACACTGCTCTTTCTAGTGAGTCAAGGTCTCCTAAGTTT  
 CCAAGCTAAACAGGAGTACTGTCTGAAGCCAGAATGCATAGAAGCCGCTGCTGCCATCATGAGCAAAGTA  
 AATCTTTCTGTGGATCCTTGTGAGAATTTTTCCGGTTTGCTTGTGATGGCTGGATAAGCAATAACCCAA  
 TTCCTGAAGATATGCCAAGCTATGGGGTTTATCCTTGGCTGAGACACAATGTTGACCTCAAGTTGAAGGC  
 ACTTCTGGAGAAATCAGTCAGCCGAAGGCGGGACACTGAAGCCGTACAGAAAGCCAAAATCCTCTACTCA  
 TCCTGCATGAATGAGAAAGCAATTGAAAAAGCAGATGCCAAGCCACTGCTCCACATCTTGAGGCATTAC  
 CTTTCCGCTGCCAGTGTGAAGCTAATTTGGTCTGAAGGGTTTGGTCAGAGAGAAAATTCAGTCT  
 ACTGCAAACTGGCAACGTTCCCGGTCAATACAGCAATTCTGTGTTCCGTTTGTATGTGCCCT  
 GATGACAAGGCATCCAATGAACATATCTTGAAGCTGGACCAAGCAACACTCTCTGCGTGAAGGGGAA  
 ACTTCTGGATAACACTACTGAAGCCAAATCTTATCGGGATGCCCTTTACAAATTCATGGTGGACTGC  
 TGTGCTTTTAGGAGCTAATAGCTCTCGAGCTGAACATGACATGAAGTCGGTGTAGACTGGAAATTAAG  
 ATAGCTGAGATAATGATTCCACATGAGAACCGAACAGTGAAGCTATGTATAACAAAATGAACATCTCAG  
 AACTCAGCGCTATGATCCCCAGTTTACTGGCTGGGCTATATCAAGAAGGTCATTGATACCAGACTCTA  
 CCCACACTTGAAGACATTGGTCCCTCGGAGAAATGGTGGTCCGCGTCCCACAGTACTTTAAGATTTG  
 TTTAGGATATTAGTGCCGAGAGGAAGAAAACCAATGCCAATTTAGTGTGGAGAATGGTTTATTCCA  
 GAATCCAAACCTCAGCAGGCGCTTTCAATATAGATGGCTAGAATTCTCAAGGGTAAATCCAGGGGACCAC  
 AACTCTGCTGCCTCAGTGGGACAAATGTGTCAACTTTATTGAGAGTGCCTCCATATGTTGTGGGAAA  
 ATGTTTGTGAATGTTCACTTCCAGGAGGATAAAGAAAGAAATGATGGAAGAATTGATTGAGGGTGTCCGCT  
 GGGCTTCATTGACATGCTGGAGAAAGAAAATGAATGGATGGATGCAGGGACAAAAGGAAAGCTCAAGA  
 AAAGGCAAGAGCTGTTTTGGCAAAAGTTGGCTATCCAGAGTTTATAATGAATGATACTTATGTTAATGAA  
 GACCTCAAGGCAATCAAATTTTCAGAATCGGACTACTTTGGCAACGTAAGTCAAAACCCGCAAGTATTTAG  
 CACAGTCTGATTTCTTCTGGCTAAGAAAAGCTGTCCCAAACAGAGTGGTTTACAAACCAACAACAGT  
 CAATGCCTTTTACAGTGCATCTACCAACCAGATACGATTTCTGCTGGAGAGCTGCAGAAGCCTTTCTTT  
 TGGGGAACAGAATACCCTCGATCCCTGAGTTATGGTGCTATAGGAGTAATTGTGGCCATGAATTTACAC  
 ATGGATTTGATAATAATGGTAGAAAATATGATAAAAATGGAAACCTTGATCCGTGGTGGTCTGTGGAATC  
 AGAAGAAAAGTTAAGGAAAAACAATAATGCATGATTAACAGTATAGCAACTATTATTGGAAGAAAGCC  
 GGCTTAAATGTGAAGGGGAGAGACCCTGGGAGAAAATATTGCTGATAATGGGGTCTGCGAGAAGCTT  
 TTAGGGCTTACAGGAAATGGATAAATGATAGAAGACAGGGAGTTGAAGAGCCCCTCCTACCAGGCATCAC  
 ATTCACCAACAATCAGCTCTTCTCCTGAGTTATGCTCATGTAAGGTGCAATTCCTATAGACCAGAAGCT  
 GCCAGAGAACAAGTGCAATTTGGTGCTCACAGTCCACAATTTAGGGTCAATGGTGCCATTAGCAACT  
 TTGAAGAATTTAGAAAAGCTTTTAACTGTCCACGAAATTCACATGAACAGAGGTGCAGATTCTGCCG  
 ACTCTGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR227127 representing NM\_011077  
 Red=Cloning site Green=Tags(s)

MEAETGSTMETGKGTNRGIRIALALFIGGTLVLGTLFLVSQGLLSFQAKQEYCLKPECIEAAAAIMSKV  
 NLSVDPCEFFRFACDGIWISNNPIPEDMPSYGVYPWLRHNVDLKALKALLEKSVSRRRDTEAVQKAKILYS  
 SCMNEKAIKADAKPLLHLRHSPFRWPVLEANIGPEGVWSEKFSLLQTLATFRGQYSNSVFIIRLYVSP  
 DDKASNEHILKLDQATLSLAVREDFLDNTTEAKSYRDALYKFMVDTAVLLGANSSRAEHDMKSVLRLEIK  
 IAEIMIPHENRTSEAMYNKMNISELSAMIPQFDWLGVIKKVIDTRLYPHLKDIGPSENVVVRVPQYFKDL  
 FRILGAERKKTIANYLWVRMVYSRIPNLSRRFQYRWLEFSRVIQGTTLTPQWDKCVNFIESALPYVVGK  
 MFINVHFQEDKKEMMEELIEGVRWAFIDMLEKENEWMDAGTKRKAQEKARAVLAKVGYPEFIMNDTYVNE  
 DLKAIKFESDYFGNVLQTRKYLAQSDFWLRKAVPKTEWFTNPTTVNAFYASTNQIRFPAGELQKPF  
 WGTEYPRSLSYGAIGVIVGHEFTHGFDNNGRKYDKNGNLDPWWSVESEEKFEKTKCMINQYSNYWKKKA  
 GLNVKGRKRTLGENIADNGGLREAFRAYRKWINDRRQGVVEPLLPGITFTNNQLFFLSYAHVRCNSYRPEA  
 AREQVQIGAHSPQFRVNGAISNFEEFQKAFNCPRNSTMNRGADSCRLW

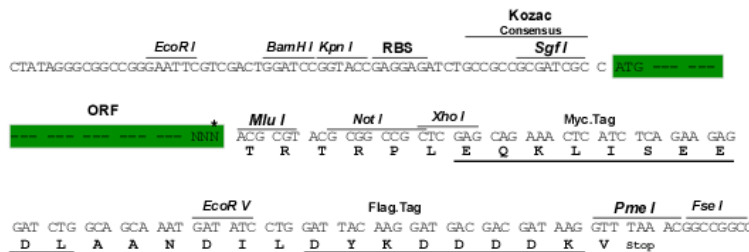
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mm9013\\_d06.zip](https://cdn.origene.com/chromatograms/mm9013_d06.zip)

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_011077

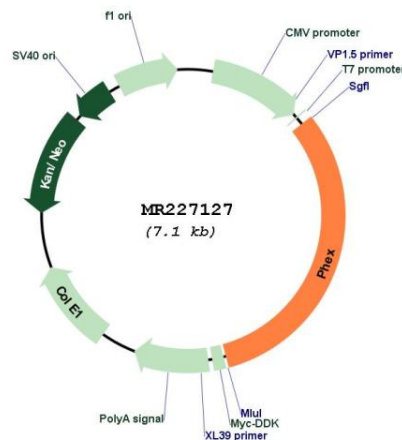
ORF Size: 2247 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>RefSeq:</b>	<u><a href="#">NM_011077.2</a></u> , <u><a href="#">NP_035207.1</a></u>
<b>RefSeq Size:</b>	6265 bp
<b>RefSeq ORF:</b>	2250 bp
<b>Locus ID:</b>	18675
<b>UniProt ID:</b>	<u><a href="#">P70669</a></u>
<b>Cytogenetics:</b>	X 72.38 cM
<b>MW:</b>	86.9 kDa
<b>Gene Summary:</b>	Peptidase that cleaves SIBLING (small integrin-binding ligand, N-linked glycoprotein)-derived ASARM peptides, thus regulating their biological activity (By similarity). Cleaves ASARM peptides between Ser and Glu or Asp residues (By similarity). Regulates osteogenic cell differentiation and bone mineralization through the cleavage of the MEPE-derived ASARM peptide (PubMed:11159866, PubMed:18597632, PubMed:26051469). Promotes dentin mineralization and renal phosphate reabsorption by cleaving DMP1- and MEPE-derived ASARM peptides (PubMed:26051469). Inhibits the cleavage of MEPE by CTSB/cathepsin B thus preventing MEPE degradation (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR227127