

Product datasheet for **MG227127**

Phex (NM_011077) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phex (NM_011077) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Phex
Synonyms:	Gy; HPDR; HPDR1; Hyp; PEX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG227127 representing NM_011077
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAAGCAGAAACAGGGAGCACCATGGAGACTGGAAAGGGACCAACCGAGGCATTCGGATTGCACCTGG
 CCCTGTTTATTGGTGGCACCCCTGGTGTGGGCACACTGCTCTTTCTAGTGAGTCAAGGTCTCCTAAGTTT
 CCAAGCTAAACAGGAGTACTGTCTGAAGCCAGAATGCATAGAAGCCGCTGCTGCCATCATGAGCAAAGTA
 AATCTTTCTGTGGATCCTTGTGAGAATTTTTCCGGTTTGCTTGTGATGGCTGGATAAGCAATAACCCAA
 TTCCTGAAGATATGCCAAGCTATGGGGTTTATCCTTGGCTGAGACACAATGTTGACCTCAAGTTGAAGGC
 ACTTCTGGAGAAATCAGTCAGCCGAAGGCGGGACACTGAAGCCGTACAGAAAGCCAAAATCCTCTACTCA
 TCCTGCATGAATGAGAAAGCAATTGAAAAAGCAGATGCCAAGCCACTGCTCCACATCTTGAGGCATTAC
 CTTTCCGCTGCCAGTGTGAAGCTAATTTGGTCTGAAGGGTTTGGTCAGAGAGAAAATTCAGTCT
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 GATGACAAAGCATCCAATGAACATATCTTGAAGCTGGACCAAGCAACACTCTCTGCGTGAAGGGGAA
 ACTTCTGGATAACACTACTGAAGCCAAATCTTATCGGGATGCCCTTTACAAATTCATGGTGGACTGC
 TGTGCTTTTAGGAGCTAATAGCTCTCGAGCTGAACATGACATGAAGTCGGTGTAGACTGGAAATTAAG
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 GGCTTAAATGTGAAGGGGAGAGACCCTGGGAGAAAATATTGCTGATAATGGGGGTCTGCGAGAAGCTT
 TTAGGGCTTACAGGAAATGGATAAATGATAGAAGACAGGGAGTTGAAGAGCCCCTCCTACCAGGCATCAC
 ATTCACCAACAATCAGCTCTTCTCCTGAGTTATGCTCATGTAAGGTGCAATTCCTATAGACCAGAAGCT
 GCCAGAGAACAAGTGCAATTTGGTGCTCACAGTCCACAATTTAGGGTCAATGGTGCCATTAGCAACT
 TTGAAGAATTTAGAAAAGCTTTTAACTGTCCACGAAATTCACATGAACAGAGGTGCAGATTCTGCCG
 ACTCTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG227127 representing NM_011077
 Red=Cloning site Green=Tags(s)

MEAETGSTMETGKGTNRGIRIALALFIGGTLVLGTLFLVSQGLLSFQAKQEYCLKPECIEAAAAIMSKV
 NLSVDPCEFFRFACDGISSNNPIPEDMPSYGVYPWLRHNVDLKLKALLEKSVSRRRDTEAVQKAKILYS
 SCMNEKAIEKADAKPLLHLRHSPFRWPVLEANIGPEGVWSEKFSLLQLATFRGQYSNSVFIIRLYVSP
 DDKASNEHILKLDQATLSLAVREDFLDNTTEAKSYRDALYKFMVDTAVLLGANSSRAEHDMKSVLRLEIK
 IAEIMIPHENRTSEAMYKMNISELSAMIPQFDWLGVIKKVIDTRLYPHLKDIGPSENVVVRVPQYFKDL
 FRILGAERKKTIANYLWVRMVYSRIPNLSRRFQYRWLEFSRVIQGTTLTPQWDKCVNFIESALPYVVGK
 MFINVHFQEDKKEMMEELIEGVRWAFIDMLEKENEWMDAGTKRKAQEKARAVLAKVGYPEFIMNDTYVNE
 DLKAIKFESDYFGNVLQTRKYLAQSDFWLRKAVPKTEWFTNPTTVNAFYASTNQIRFPAGELQKPF
 WGTEYPRSLSYGAIQVIVGHEFTHGFDNNGRKYDKNGNLDPWWSVESEEKFEKTKCMINQYSNYWKKKA
 GLNVKGRKRTLGENIADNGGLREAFRAYRKWINDRRQGVVEPLLPGITFTNNQLFFLSYAHVRCNSYRPEA
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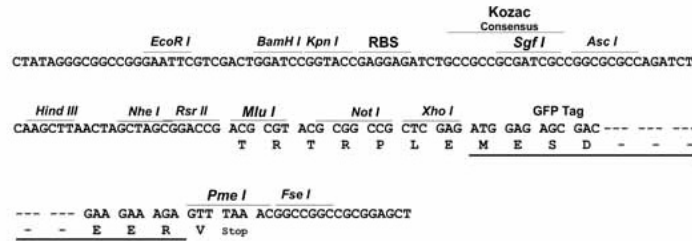
TRTRPLE - GFP Tag - V

Restriction Sites:

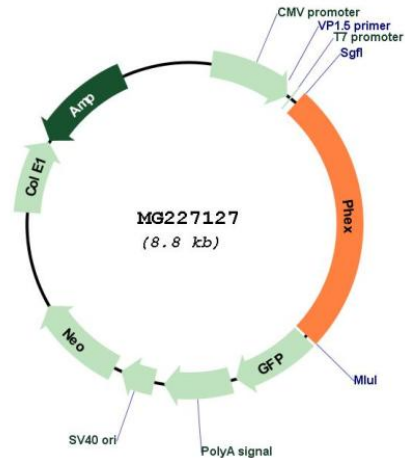
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



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.

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_011077.2](#), [NP_035207.1](#)

RefSeq Size: 6265 bp

RefSeq ORF: 2250 bp

Locus ID: 18675

UniProt ID: [P70669](#)

Cytogenetics: X 72.38 cM

Gene Summary: 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]