

Product datasheet for **MG227498**

Enpp1 (NM_008813) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Enpp1 (NM_008813) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Enpp1
Synonyms:	4833416E15Rik; AI428932; C76301; CD203c; E-N; E-NPP 1; E-NPP1; Ly-4; Ly-41; M6S1; N; NPP1; Npps; P; PC-; PC-1; Pca; Pca-1; Pd; Pdnp1; ttw; twy
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG227498 representing NM_008813
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCGCGACGGCGACCAGGCAGGGCACGGGCCCGGCACGGGTGTCAGCGGAAACGGTCGCGAGCTCG
 AGTCACCAGCCGGCTTCGCTGCTCGGCCCATGGACCTAGGAGAGGAGCCGCTGGAGAAGGCGGAGCG
 TGCCCGCCCTGCCAAAGACCCCAACACCTACAAAGTGCTGTCGCTGGTTTTGTCAGTATGTGTGCTAACA
 ACAATTCTTGGTTGTATATTTGGGTTGAAACCAAGCTGCGCCAAAGAAGTAAAAAGTTGCAAAGGCCGCT
 GCTTTGAAAGGACGTTACGCAACTGTCGCTGTGATGCTGCCTGTGTACGCTTGGGAACTGCTGTCTGGA
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 GGTGGACTTCTTCTGTCAATTAGCAAGCTGAAAAACTGTGGAACATACACTAAAAACATGAGGCCTATGT
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 TGATAACAAGATGTATGATCCCAAAATGAATGCTTCTTTCTCGCTTAAAAGTAAAGAGAAATTAACCCCT
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 CCTTGCAGAAGGTTGACCGCTGGTCCGATGCTGATGGACGGCTGAAGGACCTGGGCTGGATAAATG
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 CCCCTGACCTTCTACCTGGACCTCAGTGGCAACTTGCCTTGAATCCATCAGAGAGGAAATATTGTGAA
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 CAAGCATGGTGTGAAGTTGACTCCTTTGAAAATATTGAAGTCTATAACTTAATGTGTGACTTACTGGGT
 TTGATCCAGCTCCCAATAATGGAAGTCATGGCAGCCTTAACCACCTTCTAAAGAAACCCATTTACAACC
 CAAGTCATCCCAAGAAGAGGGCTTCTGTCTCAGTGTCCAATCAATCAACATCCAATGACCTCGGCTG
 CACATGTGACCCTTGATTGTGCCAATCAAGGACTTTGAGAAACAGCTTAATCTGACCACAGAAGATGAT
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 TGCACAGAGCTCGGTCACAGACGTGGAACCTCATCTGCGCTCAGCTTCTACCAGGACCGACAAGATC
 AGTTTCAGAACTGCTGAGGTTGAAAACACATTTGCCAATCTTTCAGCCAAGAAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG227498 representing NM_008813
 Red=Cloning site Green=Tags(s)

MERDGDQAGHGPRHGSAGNGRELESPAASLLAPMDLGEEPLEKAERARPAKDPNTYKVL SLVLSVCVLT
 TILGCIFGLKPSCAKEVK SCKGRCFERTFSNCRDAACVSLGNCCLDFQETC VEPHTHIWTCNKFRCGEKR
 LSRFVCSADDCKTHNDCCINYSVVCQDKKSWEETCESIDTPECPAEFESPTLLFSLDGFRAEYLHTW
 GGLLPVI SKLKNCGTYTKNMRPMYPTKTFPNHYSIVTGLYPESHGII DNKMYDPKMNASFSLKSKEKFN
 LWYKGQPIWVTANHQEVKSGTYFWPGSDVEIDGILPDIYKYVNGSVPFEERILAVLEWLQLP SHERPHFY
 TLYLEEPDSSGSHGSPVSEVIKALQKVDRLVGMLMDGLKDLGLDKLNLILISDHGMEQGSCCKKYVYLN
 KYLGDVNNVKVYVYGAARLRPTDVPETYYSFNYEALAKNLS CREPNQHFRPYLKPFLPKRLHFAKSDRIE
 PLTFYLDPQWQLALNPSEKCYCGSGFHGSDNLF SNMQALFIGYGP AFKHGAEVDSFENIEVYNLMCDLLG
 LIPAPNNGSHGSLNHLKKPIYNPSHPKEEGFLSQCP IKSTSNDLGCTCDPWIVPIKDFEKQLNLTEDD
 DIYHMTVPYGRPRILLKQHRVCLLQQQFLTGYSLDLLMPLWASYTFLSNDQFSRDFSNCLYQDLRIPL
 SPVHKCSYKSNKLSYGFLTPPRLNRVSNHIYSEALLTSNIVPMYQSFQVIWHYLHDTLLQRYAHERNG
 INVVSGPVDFDYDGRYDSLEILKQNSRVIRSQEILIPTHFFIVLTSCKQLSETPLECSALESSAYILPH
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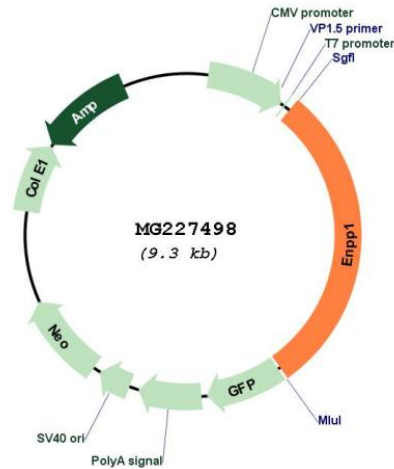
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_008813

ORF Size: 2715 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_008813.4](#), [NP_032839.3](#)

RefSeq Size: 3224 bp

RefSeq ORF: 2718 bp

Locus ID: 18605

Cytogenetics: 10 12.26 cM

Gene Summary:

This gene encodes a member of the nucleoside pyrophosphatase/phosphodiesterase family of enzymes that catalyzes the hydrolysis of pyrophosphate and phosphodiester bonds in nucleotide triphosphates and oligonucleotides, respectively, to generate nucleoside 5'-monophosphates. The encoded protein is a type II transmembrane glycoprotein that negatively regulates bone mineralization. Mice harboring a nonsense mutation in this gene, termed tiptoe walking (ttw), exhibit ectopic ossification of the spinal ligaments. The encoded protein binds to the insulin receptor, inhibits downstream signaling events and induces insulin resistance and glucose tolerance. This gene is located adjacent to a paralog on chromosome 10. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Apr 2015]