Amelotin (AMTN) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Amelotin (AMTN), Recombinant Protein
Full Product Name	Recombinant Human Amelotin (AMTN)
Product Gene Name	AMTN recombinant protein
Product Synonym Gene Name	AMTN
Sequence	LPQLKPALGL PPTKLAPDQG TLPNQQQSNQ VFPSLSLIPL TQMLTLGPDL HLLNPAAGMT PGTQTHPLTL GGLNVQQQLH PHVLPIFVTQ LGAQGTILSS EELPQIFTSL IIHSLFPGGI LPTSQAGANP DVQDGSLPAG GAGVNPATQG TPAGRLPTPS GTDDDFAVTT PAGIQRSTHA IEEATTESAN GIQ
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	21,459 Da
Sequence Positions	17-209, Full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	610912
3D Structure	ModBase 3D Structure for Q6UX39
Species	Human
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for AMTN recombinant protein	MBS1424521 is a recombinant protein targeting AMTN. Also known as Recombinant Human Amelotin (AMTN). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of AMTN recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AMTN. It may not necessarily be applicable to this product.

NCBI GI #	557878593
NCBI GeneID	401138
NCBI Accession #	NP_001273660.1
UniProt Primary Accession #	Q6UX39
UniProt Secondary Accession #	Q0P503; Q0P506

UniProt Related Accession #	Q6UX39
GenBank Nucleotide #	NM_001286731.1
NCBI Official Full Name	amelotin isoform 2
NCBI Official Synonym Full Names	amelotin
NCBI Official Symbol	AMTN
NCBI Official Synonym Symbols	AI3B; UNQ689
UniProt Protein Name	Amelotin
Protein Family	Amelotin
UniProt Gene Name	AMTN
NCBI Protein Information	amelotin
NCBI Summary for AMTN	The mineralized portions of teeth, the dentin and enamel, are formed by mesenchyme-derived odontoblasts and epithelium-derived ameloblasts, respectively. As ameloblasts differentiate, they deposit specific proteins necessary for enamel formation, including amelogenin (AMELX; MIM 300391), enamelin (ENAM; MIM 606585), and ameloblastin (AMBN; MIM 601259), in the organic enamel matrix. Amelotin is specifically expressed in maturation-stage ameloblasts (Iwasaki et al., 2005 [PubMed 16304441]).[supplied by OMIM, Mar 2008]
UniProt Comments for AMTN	Is a promoter of calcium phosphate mineralization, playing a critical role in the formation of the compact, mineralized, aprismatic enamel surface layer during the maturation stage of amelogenesis.
Research Articles on AMTN	**1.** Results show that AMTN and KLK4 are not essential for biological processes outside of the dentition or during the secretory stage of amelogenesis. Both KLK4 and AMTN proved to be essential for the maturation of dental enamel, a process that requires the removal of extracellularmatrix proteins and the deposition of ions on the sides of enamel crystallites.
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