

Recombinant Human AMELX protein, His-tagged

Cat. No. AMELX-12H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human AMELX(Met17-Asp191) fused with His tag at N-terminal was expressed in Yeast.

Species Human

Source Yeast

ProteinLength 17-191 a.a.

Description Amelogenin is the name for a series of closely related proteins involved in amelogenesis, the development of enamel. They are a type of extracellular matrix (ECM) protein, which, together with ameloblastins, enamelines, and tuftelins direct the mineralization of enamel to form a highly organized matrix of rods, interrod crystal, and protein. Amelogenins are believed to be involved in the organizing of enamel rods during tooth development. These proteins regulate the initiation and growth of hydroxyapatite crystals during the mineralization of enamel. In addition, amelogenins appear to aid in the development of cementum by directing cementoblasts to the tooth's root surface.

Form Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

AA Sequence
 MGHHHHHHSGSGSLEVLFGQPMPLPPHPGHPGYINFSYEVLTPLKWKYQSIRPPYPSY
 GYEPMGGWL HHQIIPVLSQQHPPTHTLQPHHHIPVVPAQQPVIPQQPMMPVPGQH
 SMTPIQHHPNLPPPAQQP YQPQPVPQPHQPMQPQPPVHPMQLPPQPPLPPM
 FPMQLPPMLPDLTLEAWPSTDKTKREEVD

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Endotoxin	Less than 0.1 ng/g (1 IEU/g) as determined by LAL test.
Purity	Greater than 95% as determined by reducing SDS-PAGE.
Storage	<p>Lyophilized protein should be stored at < -20 centigrade, though stable at room temperature for 3 weeks.</p> <p>Reconstituted protein solution can be stored at 4-7 centigrade for 2-7 days.</p> <p>Aliquots of reconstituted samples are stable at < -20 centigrade for 3 months.</p>
Reconstitution	<p>Always centrifuge tubes before opening. Do not mix by vortex or pipetting.</p> <p>It is not recommended to reconstitute to a concentration less than 100 µg/ml.</p> <p>Dissolve the lyophilized protein in ddH₂O.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>

GENE INFORMATION

Gene Name	AMELX amelogenin, X-linked [Homo sapiens]
Official Symbol	AMELX
Synonyms	AMELX; amelogenin, X-linked; AMG; AI1E; AIH1; ALGN; AMGL; AMGX;
Gene ID	265
mRNA Refseq	NM_001142
Protein Refseq	NP_001133
MIM	300391
UniProt ID	Q99217

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Chromosome

Xp22.31-p22.1

Location

Function

cell surface binding; growth factor activity; hydroxyapatite binding; identical protein binding; protein binding; structural constituent of tooth enamel; structural constituent of tooth enamel;

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