Datasheet for ABIN7196678

Kallikrein 4 Protein (His tag)

Go to Product page

Overview

Quantity:	50 µg
Target:	Kallikrein 4 (KLK4)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Kallikrein 4 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Kallikrein 4/KLK4 Protein (His Tag)(Active)
Sequence:	Met 1-Ser 254
Characteristics:	A DNA sequence encoding the human KLK4 (NP_004908.3) (Met 1-Ser 254) was expressed, with a polyhistidine tag at the C-terminus.
Purity:	> 94 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to cleave the fluorogenic peptide substrate Boc-VPR-AMC. (R&D Systems, Catalog # ES011). The specific activity is >250 pmoles/min/µg.(Activation description: The proenzyme needs to be activated by Thermolysin for an activated form)

Target Details

Target:	Kallikrein 4 (KLK4)

Target Details

Alternative Name:	Kallikrein 4/KLK4 (KLK4 Products)
Background:	Background: Kallikrein-4, also known as Enamel matrix serine proteinase 1, Kallikrein-like protein 1, KLK-L1, Serine protease 17, KLK4, PRSS17 and EMSP1, is a secreted protein which belongs to the peptidase S1 family and Kallikrein subfamily. Kallikrein-4 / KLK4 is a serine protease expressed during enamel maturation, and proteolytic processing of the enamel matrix by KLK4 is critical for proper enamel formation. Kallikrein-4 / KLK4 contains one peptidase S1 domain. Kallikrein-4 / KLK4 is secreted by transition- and maturation-stage ameloblasts. KLK4 aggressively degrades the retained organic matrix following the termination of enamel protein secretion. Two proteases are secreted into the enamel matrix of developing teeth. The early protease is enamelysin (MMP-20). The late protease is kallikrein 4 (KLK4). The principle functions of MMP-20 and KLK4 in dental enamel formation are to facilitate the orderly replacement of organic matrix with mineral, generating an enamel layer that is harder, less porous, and unstained by retained enamel proteins. Defects in Kallikrein-4 / KLK4 are the cause of amelogenesis imperfecta hypomaturation type 2A1 (AI2A1) which is an autosomal recessive defect of enamel formation. The disorder involves both primary and secondary dentitions. Synonym: Kallikrein-4; Enamel Matrix Serine Proteinase 1; Kallikrein-Like Protein 1; KLK-L1; Prostase; Serine Protease 17; KLK4; EMSP1; PRSS17; PSTS;AI2A1;ARM1;EMSP;kallikrein;KLK-L1
Molecular Weight:	25.8 kDa
NCBI Accession:	NP_004908
Pathways:	Complement System

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted

Handling

samples are stable at < -20°C for 3 months.