

## Active Recombinant Human FAM20C protein, His-tagged

Cat. No. FAM20C-260H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human FAM20C(Val63-Arg584) fused with His tag at C-terminal was expressed in CHO.

**Species** Human

**Source** CHO

**ProteinLength** 63-584 a.a.

**Description** Fam20C is a protein kinase dedicated to the phosphorylation of extracellular proteins, including caseins, and is localizes within the Golgi apparatus and also is secreted. It phosphorylates the caseins as well as several other secreted proteins such as AMELX, AMTN, ENAM, SPP1 and the small integrin-binding ligand N-linked glycoproteins SIBLINGs implicated in biomineralization. Consequently, mutations in Fam20C cause an osteosclerotic bone dysplasia in humans known as Raine syndrome and hypophosphatemic rickets. The discovery of the function of Fam20C has solved a 130-year-old mystery of the identity of the kinases that phosphorylate caseins and has shed light on several human disorders of biomineralization. In addition to its role in biomineralization, Fam20C also plays a role in lipid homeostasis, wound healing and cell migration and adhesion.

**Predicted N Terminal** Val63 (pro-mature) and Asp93 (mature)

**Form** Supplied as a 0.2 µm filtered solution in Tris and NaCl.

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<b>Bio-activity</b>	Measured by its ability to hydrolyze the 5'-phosphate groups from the substrate adenosine-5'-triphosphate (ATP). The orthophosphate product is measured by a Universal Kinase Activity Kit. The specific activity is >20 pmol/min/μg.
<b>Molecular Mass</b>	Predicted Molecular Mass: 60 kDa SDS-PAGE: 70-82 kDa, reducing conditions
<b>Endotoxin</b>	<1.0 EU per 1 μg of the protein by the LAL method.
<b>Purity</b>	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.

## GENE INFORMATION

<b>Gene Name</b>	FAM20C family with sequence similarity 20, member C [ Homo sapiens ]
<b>Official Symbol</b>	FAM20C
<b>Synonyms</b>	FAM20C; family with sequence similarity 20, member C; dentin matrix protein 4; DKFZp547D065; DMP4; IMAGE:4942737; RNS; DMP-4; DKFZp547C074;
<b>Gene ID</b>	56975
<b>mRNA Refseq</b>	NM_020223
<b>Protein Refseq</b>	NP_064608

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<b>MIM</b>	611061
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<b>UniProt ID</b>	Q8IXL6
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