

Recombinant Human FAM20C/DMP4 Protein (His Tag)

Catalog No. PKSH030502

Note: Centrifuge before opening to ensure complete recovery of vial contents.

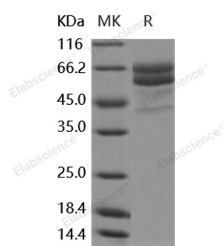
Description

| | |
|------------------------------------|----------------------------|
| Synonyms | DMP-4;DMP4;GEF-CK;RNS |
| Species | Human |
| Expression Host | Baculovirus-Insect Cells |
| Sequence | Met 1-Arg584 |
| Accession | NP_064608.2 |
| Calculated Molecular Weight | 65.1 kDa |
| Tag | C-His |
| Bioactivity | Not validated for activity |

Properties

| | |
|-----------------------|--|
| Purity | > 85 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per µg of the protein as determined by the LAL method. |
| Storage | 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 samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 8.0, 10 % glycerol Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Fam20C is a protein kinase dedicated to the phosphorylation of extracellular proteins, including caseins, and is localized 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

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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.