

Recombinant Human Osteomodulin/OMD Protein

Catalog No.: RP03224 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	4958	Q99983

Tags

C-His

Synonyms

Keratan sulfate proteoglycan osteomodulin; KSPG osteomodulin; Osteoadherin; OSAD; OMD; SLRR2C

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
48.6 kDa	50-65 kDa

Endotoxin

< 1.0 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

Osteomodulin (OMD), also known as Osteoadherin (OSAD), Keratan sulfate proteoglycan osteomodulin, KSPG osteomodulin, and SLRR2C, is a secreted protein that belongs to the small leucine-rich proteoglycan (SLRP) family and Class II subfamily. SLRP family proteins are normally found in extracellular matrices, but Osteomodulin is the only member restricted to mineralized tissues. Osteomodulin is primarily expressed by osteoblasts and might have a role in the regulation of mineralization. In bone, OSAD has been localized in the primary spongiosa within the bovine fetal rib growth plate. Moreover, in situ hybridization has shown expression of OSAD in osteoblasts close to the cartilage and bone border in the growth plate of rat femur. OSAD may play an important role during tooth development and biomineralization of dentin. Osteomodulin is a cell binding keratan sulfate proteoglycan that was recently isolated from mineralized bovine bone and subsequently cloned and sequenced. Osteomodulin may be implicated in biomineralization processes. It has a function in the binding of osteoblasts via the alpha (V) beta (3)-integrin. Osteomodulin is likely an osteoblast maturation marker that is induced by osteoclast activity.

Basic Information

Description

Recombinant Human Osteomodulin/OMD Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Glu421) of human Osteomodulin/OMD (Accession #Q99983) fused with His tag at the C-terminus.

Bio-Activity

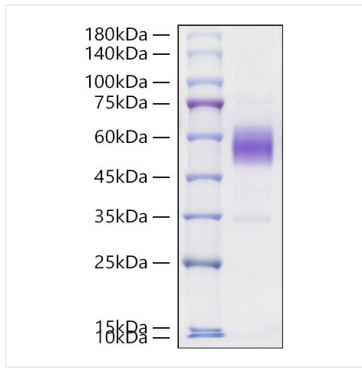
Storage

Store the lyophilized protein at -20°C to -80°C for 12 months.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Osteomodulin/OMD Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 50-65 kDa.