

32-6314: BMP13 Human

Application :	Functional Assay
Alternative Name :	Growth Differentiation Factor 6, Growth/Differentiation Factor 16, Bone Morphogenetic Protein 13, BMP-13, BMP13, GDF-6, Klippel-Feil Malformation, Segmentation Syndrome 1, Klip-Feil Malformation, Klippel-Feil Syndrome, MCOPCB6, SCDO4, CDMP2, LCA17, MCOP4, GDF16, KFS1, KFSL, SGM1, KFM, KFS, GDF6.

Description

Source: Escherichia Coli.

Sterile Filtered White lyophilized (freeze-dried) powder.

Growth/differentiation factors (GDF1-GDF15) belong to the BMP family of TGF-beta superfamily proteins. These factors are produced as inactive preproteins which are subsequently cleaved and assembled into active secreted homodimers. BMP13 is a growth factor which controls proliferation and cellular differentiation in the retina and bone formation. BMP13 has a central role in regulating apoptosis during retinal development. GDF proteins are vital during embryonic development, particularly in the skeletal, nervous, and muscular systems. BMP13 gene mutations result in colobomata, which are congenital abnormalities in ocular development, and in Klippel-Feil syndrome (KFS), which is a congenital disorder of spinal segmentation.

BMP13 Human Recombinant produced in E.coli is a non-glycosylated disulfide linked homodimer containing 2 chains of 120 amino acids and having a molecular mass of 27.1kDa. The BMP-13 is purified by proprietary chromatographic techniques.

Product Info

Amount :	10 µg / 50 µg
Purification :	Greater than 95.0% as determined by: (a) Analysis by HPLC. (b) Analysis by SDS-PAGE. BMP-13 protein was lyophilized from a 0.2µm filtered concentrated solution in 30% Acetonitrile and 0.1% TFA.
Content :	It is recommended to reconstitute the lyophilized BMP13 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Storage condition :	Lyophilized BMP13 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BMP-13 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Amino Acid :	TAFASRHGKR HGKKSRLRCS KKPLHVNFKL LGWDDWIIAP LEYEAYHCEG VCFPLRSHL EPTNHAIQT LMNSMDPGST PPSCCVPTKL TPISILYIDA GNNVVYKQYE DMVVESCGCR.

Application Note

The ED50 as determined by inducing alkaline phosphatase production of murine ATDC5 cells is less than 2.0µg/ml, corresponding to a specific activity of > 500IU/mg.