DATA SHEET

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GFH212 Recombinant Human BMP-4

Description

Bone morphogenetic protein 4 (BMP-4) is a member of the bone morphogenetic protein (BMP) family and functions in a variety of developmental processes. BMP-4 is a critical element involved in the culture and differentiation of stem cells, including differentiation in mesoderm (cardiac and skeletal muscle cells and early hematopoietic cells) and ectoderm (neural cell types and skin cell types) from pluripotent stem cells (iPSC and ESC).

Length	116 / 232 aa
Molecular Weight	13.1 / 26.2 kDa
Source	CHO
Accession Number	P12644
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

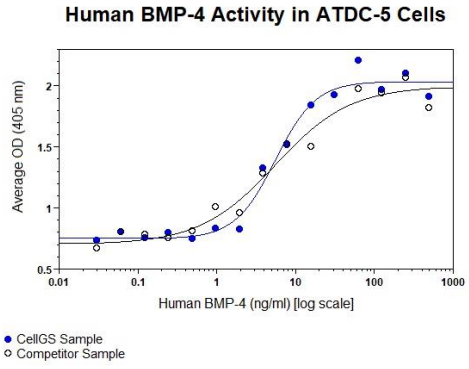
Specifications

Alternative Names	Bone morphogenetic protein 4, bone morphogenetic protein 2B, BMP-2B, BMP4, BMP2B
Biological Activity	Human BMP-4 is fully biologically active when compared to standard. The activity is determined by the alkaline phosphatase activity induced in ATDC5 cells and it is typically less than 15 ng/ml. This corresponds to an expected specific activity of 6.7 x 10^4 units/mg.
Endotoxin Level	≤1.00 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	SPKHHSQRAR KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTELSAIS MLYLDEYDKV VLKNYQEMVV EGCGCR

Preparation and Storage

Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced alkaline phosphatase in ATDC5 cells assay for Human BMP-4. Alkaline phosphatase was measured to calculate the ED50, which is as expected less than 15 ng/ml.