

BMP-4 Protein, Human, Recombinant (E399D)

General Information

Synonyms:	OFC11;BMP2B;bone morphogenetic protein 4;BMP2B1;ZYME;MCOPS6
Protein Construction:	A DNA sequence encoding the human BMP4 (P12644) (Ser293-Arg408, E399D) was expressed. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P12644
Molecular Weight:	13.25 kDa (predicted)

QC Testing

Biological Activity:	Measured by its ability to induce alkaline phosphatase production by MC3T3-E1 mouse osteoblastic cells. The ED50 for this effect is typically 0.08-0.4ug/mL.
Purity:	≥ 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 30% Acetonitrile, 1/1000 TFA. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
Reconstituted with 4 mM HCl to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

BMP4 (bone morphogenetic protein-4)-directed differentiation of human embryonic stem cells (ESCd). Autophagy is a conserved catabolic process with complicated roles in tumor development. Bone morphogenetic protein 4 (BMP4), a member of the transforming growth factor (TGF-β) family of regulatory proteins, plays a crucial role in human malignancies. BMP4 treatment promoted HCC cells proliferation and induced autophagy. Mechanistic study revealed that the induction of autophagy by BMP4 was mediated through activating the JNK1/Bcl2 pathway.

A DRUG SCREENING EXPERT

And the JNK1 inhibitor and knockdown of JNK1 could attenuate autophagy induced by BMP4 and eliminated BMP4-promoted HCC cells growth. BMP4 promoted HCC proliferation by autophagy activation through JNK1/Bcl-2 signaling.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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