

Active Recombinant Human BMP2 protein, His-GST-tagged

Cat. No. BMP2-560H Lot. No. (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human BMP2 protein(P12643)(283~396 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	283-396 aa
Form	Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-activity	Bone morphogenetic protein 2BMP2 belongs to the TGF- β superfamily of proteins. It plays an important role in the development of bone and cartilage. It is involved in the hedgehog pathway, TGF beta signaling pathway, and in cytokine-cytokine receptor interaction. BMP2 is also involved in cardiac cell differentiation and epithelial to mesenchymal transition. Like many other proteins from the BMP family, BMP2 has been demonstrated to potently induce osteoblast differentiation in a variety of cell types. Besides, Noggin (NOG) has been identified as an interactor of BMP2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human BMP2 and recombinant human NOG. Briefly, BMP2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100ul were then transferred to NOG-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-BMP2 pAb, then aspirated and washed 3 times. After

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incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of BMP2 and NOG was shown, and this effect was in a dose dependent manner.

Molecular Mass	42.9kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 97% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	BMP2 bone morphogenetic protein 2 [Homo sapiens]
Official Symbol	BMP2
Synonyms	BMP2; bone morphogenetic protein 2; BMP2A; BMP-2A; bone morphogenetic protein 2A; BDA2;
Gene ID	650
mRNA Refseq	NM_001200

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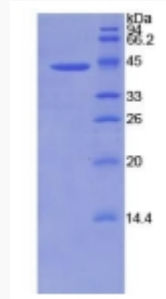
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Protein Refseq NP_001191

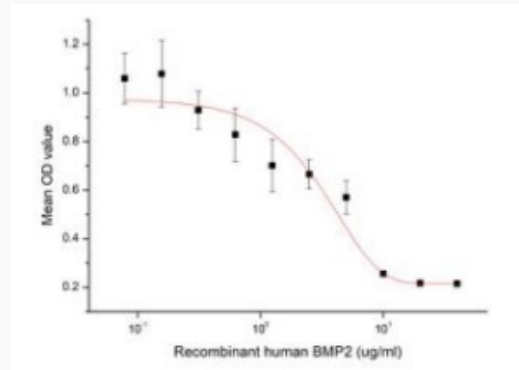
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UniProt ID P12643

SDS-PAGE



Activity



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