

Active Recombinant Human Bone Morphogenetic Protein 8a

Cat. No. BMP8A-591H Lot. No. (See product label)

SPECIFICATION

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| Product Overview | Recombinant Human BMP8A protein was expressed in E. coli. Ala264-His402 & Val265-His402. |
| Species | Human |
| Source | E.coli |
| Protein Length | 264-402;265-402 a.a. |
| Description | BMP8A was first isolated from a hippocampal library in a screen to identify relatives of BMP-7(OP-1). BMPs are a family of structurally and functionally related proteins and represent a subfamily of the transforming growth factor β (TGF- β) superfamily. BMPs were originally identified as protein regulators of cartilage and bone formation. They have since been shown to be involved in embryogenesis and morphogenesis of various tissues and organs. BMPs play roles in regulating growth, differentiation, chemotaxis, and apoptosis of various cell types, including mesenchymal, epithelial, hematopoietic, and neuronal cells. |
| Form | Lyophilized from a 0.2 μ m filtered solution in Acetonitrile and TFA with BSA as a carrier protein. |
| N-terminal Sequence | Ala264 & Val265 |
| Molecular Weight | 15.8 kDa (monomer) |

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| Activity | Measured by its binding ability in a functional ELISA. Immobilized rhBMP-8a at 1 µg/mL can bind rhBMPR1B/Fc Chimera with a linear range of 0.15-5 µg/mL. Immobilized rhBMPR1A/Fc Chimera at 5 µg/mL can bind rhBMP-8a with a linear range of 3-200ng/mL. |
| Endotoxin Level | < 1.0EU per 1 µg of the protein by the LAL method. |
| Purity | > 95%, by SDS-PAGE under reducing conditions and visualized by silver stain. |
| Reconstitution | 20 µg/mL in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin. |
| Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution. |

GENE INFORMATION

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| Gene Name | BMP8A bone morphogenetic protein 8a [Homo sapiens] |
| Official Symbol | BMP8A |
| Synonyms | BMP8A; bone morphogenetic protein 8a; bone morphogenetic protein 8A; BMP-8A |
| Gene ID | 353500 |
| mRNA Refseq | NM_181809 |
| Protein Refseq | NP_861525 |

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| UniProt ID | Q7Z5Y6 |
| Chromosome Location | 1p35-p32 |
| Pathway | Hedgehog signaling pathway; TGF-beta signaling pathway |
| Function | cytokine activity; growth factor activity |

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