

## GDF-11/BMP-11 Protein, Human (HEK293, solution)

<b>Cat. No.:</b>	HY-P70222Y
<b>Synonyms:</b>	rHuGrowth/differentiation factor 11; Growth/differentiation factor 11; GDF-11; Bone morphogenetic protein 11; BMP-11
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	O95390 (N299-S407)
<b>Gene ID:</b>	10220
<b>Molecular Weight:</b>	Approximately 14.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>N L G L D C D E H S      S E S R C C R Y P L      T V D F E A F G W D      W I I A P K R Y K A</p> <p>N Y C S G Q C E Y M      F M Q K Y P H T H L      V Q Q A N P R G S A      G P C C T P T K M S</p> <p>P I N M L Y F N D K      Q Q I I Y G K I P G      M V V D R C G C S</p>
<b>Appearance</b>	Solution
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 50% glycerol, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A.
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice

### DESCRIPTION

<b>Background</b>	<p>GDF-11/BMP-11 is a secreted signaling protein with a global regulatory impact on anterior/posterior axial patterning during development and is implicated in critical roles in mesodermal and neural tissue patterning. Essential for proper vertebral and orofacial development, GDF-11/BMP-11 transmits signals through activin receptors type-2 (ACVR2A and ACVR2B) and activin receptors type-1 (ACVR1B, ACVR1C, and TGFBR1), leading to the phosphorylation of SMAD2 and SMAD3. The protein forms homodimers through disulfide linkages and interacts directly with ACVR2A, ACVR2B, ACVR1B, TGFBR1, and ACVR1C, the latter in an ACVR2B-dependent manner. Additionally, GDF-11/BMP-11 engages with FST isoform 2/FS-288, highlighting its intricate interactions with key receptors in the signaling pathway.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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