Recombinant Human GDF-2

20171201BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**100-383**
Size:	10 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	*2658*
Synonyms:	GDF2; BMP9; BMP-9

GDF-2 belongs to the TGF-ß cytokine family whose members play an important role during prenatal development and postnatal growth, remodeling and maintenance of a variety of tissues and organs. GDF-2 is expressed mainly in nonparenchymal cells of the liver, but is also found in other various cells and tissues. GDF-2 can signal through the ALK1 receptor and has been implicated in a number of physiologic events. These include regulation of the hepatic reticuloendothelial system, glucose homeostasis, and iron homeostasis, as well as the inhibition of angiogenesis. Recombinant human GDF-2 is a 24.1 kDa disulfide linked homodimeric protein consisting of two 110 amino acid polypeptide chains.

Sequence

```
SAGAGSHCQK TSLRVNFEDI GWDSWIIAPK EYEAYECKGG
CFFPLADDVT PTKHAIVQTL VHLKFPTKVG KACCVPTKLS
PISVLYKDDM GVPTLKYHYE GMSVAECGCR
```

Database References

Protein RefSeq:	NP_057288
Uniprot ID:	Q9UK05
mRNA RefSeq:	NM_016204

Product Specifications

Expressed in	CHO cells
Purity	> 95% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	110
MW:	24.1 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/m. *Do not vortex*. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED_{50} for this effect is 0.5-1.9 ng/ml.