

Recombinant Human Growth Differentiation Factor 2, His-tagged

Cat. No. GDF2-211H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Growth Differentiation Factor 2 encoding the human Growth factor 2 Precursor (Met ¹ -Arg ⁴²⁹) was recombined with his tag at the N-Terminus. That was expressed in <i>E. Coli</i> , and purified by Ni-NTA column. MW=47.3KD.
Species	Human
Source	E.coli
ProteinLength	1-429 a.a.
Description	Growth differentiation factor 2 (GDF2) is a protein also known as bone morphogenetic protein (BMP)-9 that belongs to the transforming growth factor beta superfamily. It has a role in inducing and maintaining the ability of embryonic basal forebrain cholinergic neurons (BFCN) to respond to a neurotransmitter called acetylcholine; BFCN are important for the processes of learning, memory and attention. GDF2 is also important for the maturation of BFCN. Another role of GDF2 has been recently suggested. GDF2 is a potent inducer of hepcidin (a cationic peptide that has antimicrobial properties) in liver cells (hepatocytes) and can regulate iron metabolism.
Sequence	Human Growth differentiation factor 2(Met ¹ -Arg ⁴²⁹)1MCPGALWVAL PLLSLLAGSL Q GKPLQSWGR GSAGGNAHSP LGVPGGGLPE HTFNLKMFLE NVKVDFLRSL NLSG VPSQDK TRVEPPQYMI DLYNRYTSDK STTPASNIVR SFSMEDAISI TATEDFPFQK HILLFNISIP RHEQITRAEL RLYVSCQNHV DPSHDLKGSV VIYDVLDGTD AWDSAT

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ETKT FLVSQDIQDE GWETLEVSSA VKRWVRS DST KSKNKLEVTV ESHRKGCDTL
 DISVPPGSRN LPFFVVFSND HSSGTKETRL ELREMISHEQ ESVLKLSKD GSTE
 GESSH EEDTDGHVAA GSTLARRKRS AGAGSHCQKT SLRVNFEDIG WDSWIIAPK
 E YEAYECKGGC FFPLADDVTP TKHAIVQLTV HLFPTKVGK ACCVPTKLSP ISVL
 YKDDMG VPTLKYHYEG MSVAECGCR 429.

Purity	>95% in SDS gel.
Formulation	Lyophilized 100 µg human Growth differentiation factor 2 in 50 µl of TBS (20 mM Tris, 50mM NaCl, pH8.0). Carry free.
Application	Cell biology, ELISA.
Reconstitution	Add 500 µl deionized water to the vial to prepare a working stock solution at 200µg/mL. Allow to set at least 30 minutes at 4°C, mix well.
Storage	Store lyophilized protein at -20°C or -70°C. Lyophilized protein is stable for up to 6 months from date of receipt at -70°C. Upon reconstitution, this protein can be stored at for a few weeks or at -70°C in a manual defrost freezer for long term storage (six months). Aliquot reconstituted protein to avoid repeated freezing / thawing cycles.

GENE INFORMATION

Gene Name	GDF2 growth differentiation factor 2 [Homo sapiens]
Synonyms	GDF2; growth differentiation factor 2; BMP9; BMP-9; bone morphogenetic protein 9; GDF-2
Gene ID	2658
mRNA Refseq	NM_016204

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Protein Refseq	NP_057288
MIM	605120
UniProt ID	Q9UK05
Chromosome Location	10q11.22
Function	cytokine activity; growth factor activity; protein binding

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