



Recombinant Human GASP-1

20150227BB



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Cat.-no.:	100-090S
Size:	5 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	9737
Synonyms:	GDF-associated serum protein-1, GASP, KIAA0443, WFIKKNRP

Growth and differentiation factor-associated serum protein-1 (GASP-1) is a secreted inhibitory TGF-β binding protein that contains multiple protease inhibitor structural domains. It is expressed primarily in the ovary, testis, and brain, and can act as a potent soluble inhibitor of myostatin and GDF-11, but not Activin-A. The GASP-1 gene encodes a 571 amino acid protein that contains a 29 amino acid secretion signal sequence, and multiple identifiable structural features, including a WAP domain, a follistatin/Kazal domain, an immunoglobulin domain, two tandem Kunitz domains, and a netrin domain. Recombinant human GASP-1 is a 542 amino acid protein that migrates at an apparent molecular weight of approximately 55-66 kDa by SDS-PAGE analysis under non-reducing conditions.

Sequence

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LPPIRYSHAG ICPNDMNPNL WVDAQSTCRR ECETDQECET
YEKCCPNVCG TKSCVAARYM DVKGGKGPVG MPKEATCDHF
MCLQQGSECD IWDGQPVCKC KDRCEKEPSF TCASDGLTYY
NRCYMDAEAC SKGITLAVVT CRYHFTWPNT SPPPPETTMH
PTTASPETPE LDMAAPALLN NPVHQSVTMG ETVSFLCDVV
GRPRPEITWE KQLEDRENVV MRPNHVRGNV VVTNIAQLVI
YNAQLQDAGI YTCTARNVAG VLRADFPLSV VRGHQAAATS
ESSPNGTAFP AADECLPPDS EDCGEEQTRW HF'DAQANNCL
TFTFGHCHRN LNHFETYEAC MLACMSGPLA ACSLPALQGP
CKAYAPRWAY NSQTGQCQSF VYGGCEGNGN NFESREACEE
SCPFPRGNQR CRACKPRQKL VTSFCRSDFV ILGRVSELTE
EPDSGRALVT VDEVLKDEKM GLKFLGQEPL EVTLLHVDWA
CPCPNVTVSE MPLIIMGEVD GGMAMLRPDS FVGASSARRV
RKLREVMHKK TCDVLKEFLG LH

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Database References

Protein RefSeq:	NP_055525.3
Uniprot ID:	Q5JY77
mRNA RefSeq:	NM_014710.4

Product Specifications

Expressed in	CHO cells
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	542
MW:	55-66 kDa

Biological Activity: Determined by its ability to inhibit human Myostatin (GDF-8) activity in MCP-11 cells. The ED50 for this effect is 0.0025-0.0040 µg/ml in the presence of 5ng/ml of human Myostatin (GDF-8).



AVOID REPEATED FREEZE AND THAW CYCLES!