Recombinant Human SMN1, GST-tagged

Cat. No. SMN1-169H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SMN Tudor Domain (1472-1613 aa) fused to a GST tag at the N-terminus
Species	Human
Source	E.coli
ProteinLength	1472-1613 a.a.
Description	Tudor domains are small protein structural motifs of ~50 amino acids related to the “Royal family” of methyl readers, which also includes chromo, MBT, PWWP, and Agenet-like domains. Tudor domains occur either alone, in tandem, or with other domains and are found in many proteins that are involved in RNA metabolism, germ cell development, transposon silencing, DNA damage response, histone modification and chromatin remodeling. The tudor domains recognize symmetric methylated arginine or methylated lysine residues. The Survival of Motor Neurons (SMN) protein participates in RNA splicing. The Tudor domain of SMN recognizes and binds methylated Sm proteins, which bind small nuclear RNA. SMN is encoded in humans by two separate genes, SMN1 and SMN2, which differ by one base in exon 7. In motor neuron cells, approximately 90% of the SMN2 transcripts are spliced to exclude exon 7. The SMN2 transcripts without exon 7 are less stable than SMN1 transcripts. Consequently, defects in human SMN1 result in the death of motor neuron cells and spinal muscular atrophy, which is the leading genetic cause of infantile death. This protein product contains the tudor domain region of SMN. The sequence of this

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	region is identical in both the SMN1 and the SMN2 genes.
Form	Liquid. 50 mM Tris-HCl, 150 mM sodium chloride, pH 8.0, containing 20% glycerol.
Molecular Mass	42.6 kDa (1472-1613 aa, NT GST Tag)
Purity	≥90%
Storage	Store at -80°C. Avoid repeated freeze and thaw cycles. Stable for ≥6 months

GENE INFORMATION

Gene Name	SMN1 survival of motor neuron 1, telomeric [Homo sapiens]
Official Symbol	SMN1
Synonyms	SMN1; survival of motor neuron 1, telomeric; SMA, SMA@, spinal muscular atrophy (Werdnig Hoffmann disease, Kugelberg Welander disease); survival motor neuron protein; BCD541; SMA1; SMA2; SMA3; SMNT; gemin 1; gemin-1; component of gems 1; SMA; SMN; SMA4; SMA@; SMN2; T-BCD541;
Gene ID	6606
mRNA Refseq	NM_000344
Protein Refseq	NP_000335
MIM	600354
UniProt ID	Q16637

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Chromosome Location	5q13.2
Pathway	Gene Expression, organism-specific biosystem; Metabolism of non-coding RNA, organism-specific biosystem; RNA transport, organism-specific biosystem; RNA transport, conserved biosystem; Survival motor neuron (SMN) complex, organism-specific biosystem; snRNP Assembly, organism-specific biosystem;

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