

Gliomedin Protein, Human (HEK293, N-hFc)

Cat. No.:	HY-P76363A
Synonyms:	Gliomedin; GLDN; COLM
Species:	Human
Source:	HEK293
Accession:	Q6ZMI3-2 (M1-Q427)
Gene ID:	342035
Molecular Weight:	95-112 kDa

PROPERTIES

AA Sequence	<pre> MVDLCNSTKG ICLTGPSGPP GPPGAGGLPG HNGLDGQPGP QGPKGEKGAN GKRGMGIPG AAGNPERGE KGDHGE LGLQ NEGPPGQKG EKGDKGDVSN DVLLAGAKGD QGPPGPPGPP GPPGPPGPPG SRRAKGPRQP SMFNGQCPGE TCAIPNDDTL VGKADEKASE HHSQAESMI TSIGNPVQVL KVTETFGTWI RESANKSDDR IWVTEHFSGI MVKEFKDQPS LLNGSYTFIH LPYYFHGCGH VVYNNSLYYH KGGSNLTVRF EFGQETSQTL KLENALYFDR KYLFANSKTY FNLAVDEKGL WIIYASSVDG SSILVAQLDE RTFSVVQHVN TTYPKSKAGN AFIARGILYV TDTKDMRVTF AFDLLGGKQI NANFDLRTSQ SVLAMLAYNM RDQHLYSWED GHLMLYPVQF LSTTLNQ </pre>
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Gliomedin, a homotrimeric protein characterized by collagen-like domains, acts as a crucial ligand for NRCAM and NFASC/neurofascin, playing a pivotal role in the establishment and preservation of nodes of Ranvier along myelinated axons. Its significance lies in mediating the interaction between Schwann cell microvilli and axons through binding to NRCAM and NFASC. Nodes of Ranvier are essential regions on myelinated axons housing clustered sodium channels vital for the saltatory propagation of action potentials. Gliomedin is specifically involved in the formation of nodes during development by facilitating the fusion of heminodes, and it is indispensable for the proper clustering of sodium channels at heminodes. Additionally, in collaboration with NRCAM, Gliomedin contributes to the maintenance of NFASC and sodium channel clusters at fully mature nodes of Ranvier. Furthermore, its interaction with glial NRCAM enhances its binding affinity with axonal NFASC. Gliomedin's intricate involvement underscores its significance in the structural integrity and functional organization of nodes of Ranvier.

Caution: Product has not been fully validated for medical applications. For research use only.

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