

Product Data Sheet

RGMB Protein, Mouse (HEK293, His)

Cat. No.:	HY-P77178
Synonyms:	Repulsive guidance molecule B; RGM-B
Species:	Mouse
Source:	HEK293
Accession:	Q7TQ33/NP_848730.2 (G49-C415)
Gene ID:	68799
Molecular Weight:	Approximately 40.2 kDa.

PROPERTIES

An Sequence	GDCQQPTQCR IQKCTTDFVA LTAHLNSAAD GFDS	EFCKAL	
	RAYAGCTQRT SKACRGNLVY HSAVLGISDL MSQF	R N C S K D G	
	PTSSTNPEVT HDPCNYHSHG GVREHGGGDQ RPPN	IYLFCGL	
	FGDPHLRTFK DHFQTCKVEG AWPLIDNNYL SVQV	ΥΤΝΥΡΥΥ	
	PGSSATATNK VTIIFKAQHE CTDQKVYQAV TDDI	. P A A F V D	
	GTTSGGDGDV KSLHIVEKES GRYVEMHARY IGTT	VFVRQL	
	GRYLTLAIRM PEDLAMSYEE SQDLQLCVNG CPMS	ECIDDG	
	QGQVSAILGH SLPHTTSVQA WPGYTLETAS TQCH	ІЕКМРVК	
	DIYFQSCVFD LLTTGDANFT AAAHSALEDV EALH	IPRKERW	
	H I F P S S C		
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.		
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in PBS, pH 7.4. 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	Repulsive guidance molecule B (RGMB), a member of the repulsive guidance molecule (RGM) family, plays a pivotal role in shaping the developing nervous system. Functioning as a bone morphogenetic protein (BMP) coreceptor, RGMB enhances

BMP signaling and contributes to the modulation of neuronal adhesion. While potentially inhibiting neurite outgrowth, RGMB forms homooligomers and interacts with DRGX, BMP2, BMP4, as well as BMP type I receptors (ACVR1, BMPR1A, BMPR1B) and BMP type II receptor (ACVR2B). Notably, RGMB forms a functional complex with its receptor NEO1/neogenin, arranged as a heterotetramer with a 2:2 stoichiometry, where RGMB molecules act as staples bringing two NEO1 receptors together without engaging themselves. This arrangement leads to the activation of downstream signaling via RhoA.

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

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