

Netrin receptor DCC/DCC Protein, Human (HEK293, His)

Cat. No.:	HY-P78745
Synonyms:	Netrin receptor DCC; DCC; IGDC1; netrin receptor DCC
Species:	Human
Source:	HEK293
Accession:	P43146-1 (F32-N1097)
Gene ID:	1630
Molecular Weight:	125-150 kDa

PROPERTIES

AA Sequence

FQIKAFTALR	FLSEPSDAVT	MRGGNVLLDC	SAESDRGVPV
IKWKKDGIHL	ALGMDERKQQ	LSNGSLLIQN	ILHSRHHKPD
EGLYQCEASL	GDSGSIISRT	AKVAVAGPLR	FLSQTESVTA
FMGDTVLLKC	EVI GEPMTI	HWQKNQQLT	PIPGDSRVVV
LPSGALQISR	LQPGDIGIYR	CSARNPASSR	TGNEAEVRIL
SDPGLHRQLY	FLQRPSNVVA	IEGKDAVLEC	CVSGYPPPSF
TWLRGEEVIQ	LRSKKYSLLG	GSNLLISNVT	DDDSGMYTCV
VTYKNENISA	SAELTVLVPP	WFLNHPSNLY	AYESMDIEFE
CTVSGKPVPT	VNWMKNGDVV	IPSDYFQIVG	GSNLRILGVV
KSDEGFYQCV	AENEAGNAQT	SAQLIVPKPA	IPSSSVLPSA
PRDVPVVLVS	SRFVRLSWRP	PAEAKGNIQT	FTVFFSREGD
NRERALNTTQ	PGSLQLTVGN	LKPEAMYTFR	VVAYNEWGPG
ESSQPIKVAT	QPELQVPGPV	ENLQAVSTSP	TSILITWEPP
AYANGPVQGY	RLFCTEVSTG	KEQNI EVDGL	SYKLEGLKKF
TEYSLRFLAY	NRYGPGVSTD	DITVVTLSDV	PSAPPQNVSL
EVVNSRSIKV	SWLPPPSGTQ	NGFITGYKIR	HRKTTRRGEM
ETLEPNLWY	LFTGLEKGSQ	YSFQVSAMTV	NGTGPPSNWY
TAETPENDLD	ESQVPDQPSS	LHVRPQTNCI	IMSWTPPLNP
NIVVRGYIIG	YGVGSPYAET	VRVDSKQRY Y	SIERLESSSH
YVISLKAFFN	AGEGVPLYES	ATTRSITDPT	DPVDYYPLLD
DFPTSVPDLS	TPMLPPVG VQ	AVALTHDAVR	VSWADNSVPK
NQKTSEVRLY	TVRWRTSFSA	SAKYKSEDTT	SLSYTATGLK
PNTMYEFSVM	VTKNRRSSTW	SMTAHATTYE	AAPTSAPKDL
TVITREGKPR	AVIVSWQPPL	EANGKITAYI	LFYTLDKNIP
IDDWIMETIS	GDRLTHQIMD	LNLDTMYYFR	IQARNSKGVG
PLSDPILFRT	LKVEHPDKMA	NDQGRHGDGG	YWPVDTNLID
RSTLNEPPIG	QMHPPHGSVT	PQKNSN	

Biological Activity

Immobilized Recombinant Human DCC at 1 µg/ml (100 µl/well) can bind Biotinylated Recombinant Human Netrin-1 Protein. The ED₅₀ for this effect is 85.29 ng/mL.

Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 µm filtered solution of PB, 150 mM NaCl, 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

DCC, a critical receptor for netrin, plays a pivotal role in axon guidance by mediating axon attraction in neuronal growth cones during nervous system development upon ligand binding. Its intricate associations with UNC5 proteins may trigger signaling pathways leading to axon repulsion. Additionally, DCC acts as a dependence receptor, instigating apoptosis when not bound to the netrin ligand. Beyond its role in neural development, DCC is implicated as a tumor suppressor gene. The receptor engages in diverse protein interactions, including the cytoplasmic parts of UNC5A, UNC5B, UNC5C, and possibly UNC5D, as well as with DSCAM, PTK2/FAK1, MAPK1, NTN1, MYO10, CBLN4, SIAH1, and SIAH2. These interactions underscore the multifaceted functions of DCC in orchestrating axon guidance, apoptosis, and potential tumor suppression.

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

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