Datasheet for ABIN7553717

DGCR8 Protein (AA 1-773) (His tag)

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Overview

Quantity:	1 mg
Target:	DGCR8
Protein Characteristics:	AA 1-773
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DGCR8 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DGCR8 Protein expressed in mammalian cells.
Sequence:	METDESPSPL PCGPAGEAVM ESRARPFQAL PREQSPPPPL QTSSGAEVMD VGSGGDGQSE LPAEDPFNFY GASLLSKGSF SKGRLLIDPN CSGHSPRTAR HAPAVRKFSP DLKLLKDVKI SVSFTESCRS KDRKVLYTGA ERDVRAECGL LLSPVSGDVH ACPFGGSVGD GVGIGGESAD KKDEENELDQ EKRVEYAVLD ELEDFTDNLE LDEEGAGGFT AKAIVQRDRV DEEALNFPYE DDFDNDVDAL LEEGLCAPKK RRTEEKYGGD SDHPSDGETS VQPMMTKIKT VLKSRGRPPT EPLPDGWIMT FHNSGVPVYL HRESRVVTWS RPYFLGTGSI RKHDPPLSSI PCLHYKKMKD NEEREQSSDL TPSGDVSPVK PLSRSAELEF PLDEPDSMGA DPGPPDEKDP LGAEAAPGAL GQVKAKVEVC KDESVDLEEF RSYLEKRFDF EQVTVKKFRT WAERRQFNRE MKRKQAESER PILPANQKLI TLSVQDAPTK KEFVINPNGK SEVCILHEYM QRVLKVRPVY NFFECENPSE PFGASVTIDG VTYGSGTASS KKLAKNKAAR ATLEILIPDF VKQTSEEKPK DSEELEYFNH ISIEDSRVYE LTSKAGLLSP YQILHECLKR NHGMGDTSIK FEVVPGKNQK SEYVMACGKH TVRGWCKNKR VGKQLASQKI LQLLHPHVKN WGSLLRMYGR ESSKMVKQET SDKSVIELQQ

Product Details

	YAKKNKPNLH ILSKLQEEMK RLAEEREETR KKPKMSIVAS AQPGGEPLCT VDV **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	DGCR8
Alternative Name:	DGCR8 (DGCR8 Products)
Background:	Microprocessor complex subunit DGCR8 (DiGeorge syndrome critical region 8),FUNCTION: Component of the microprocessor complex that acts as a RNA- and heme-binding protein that is involved in the initial step of microRNA (miRNA) biogenesis. Component of the microprocessor complex that is required to process primary miRNA transcripts (pri-miRNAs) to release precursor miRNA (pre-miRNA) in the nucleus. Within the microprocessor complex, DGCR8 function as a molecular anchor necessary for the recognition of pri-miRNA at dsRNA-ssRNA junction and directs DROSHA to cleave 11 bp away form the junction to release hairpin-

Target Details

	shaped pre-miRNAs that are subsequently cut by the cytoplasmic DICER to generate mature miRNAs (PubMed:26027739, PubMed:26748718). The heme-bound DGCR8 dimer binds pri-miRNAs as a cooperative trimer (of dimers) and is active in triggering pri-miRNA cleavage, whereas the heme-free DGCR8 monomer binds pri-miRNAs as a dimer and is much less active. Both double-stranded and single-stranded regions of a pri-miRNA are required for its binding (PubMed:15531877, PubMed:15574589, PubMed:15589161, PubMed:16751099, PubMed:16906129, PubMed:16963499, PubMed:17159994). Specifically recognizes and binds N6-methyladenosine (m6A)-containing pri-miRNAs, a modification required for pri-miRNAs processing (PubMed:25799998). Involved in the silencing of embryonic stem cell self-renewal (By similarity). {ECO:0000250|UniProtKB:Q9EQM6, ECO:0000269|PubMed:15531877, ECO:0000269|PubMed:15574589, ECO:0000269|PubMed:15589161, ECO:0000269|PubMed:16751099, ECO:0000269|PubMed:16906129, ECO:0000269|PubMed:16963499, ECO:0000269|PubMed:17159994, ECO:0000269|PubMed:25799998, ECO:0000269|PubMed:26027739, ECO:0000269|PubMed:26748718}.
Molecular Weight:	86.0 kDa
UniProt:	Q8WYQ5
Pathways:	Regulatory RNA Pathways

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months