

Recombinant Mouse Dgcr8 Protein, Myc/DDK-tagged

Cat. No. Dgcr8-2533M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length DGCR8, microprocessor complex subunit (Dgcr8), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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 from the junction to release hairpin-shaped pre-miRNAs that are subsequently cut by the cytoplasmic DICER to generate mature miRNAs. 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. Specifically recognizes and binds N6-methyladenosine (m6A)-containing pri-miRNAs, a modification required for pri-miRNAs processing. Involved in the silencing of embryonic stem cell self-renewal.
Molecular Mass	86.8 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Dgcr8 DGCR8, microprocessor complex subunit [<i>Mus musculus</i> (house mouse)]
Official Symbol	Dgcr8
Synonyms	DGCR8; DiGeorge syndrome critical region gene 8; microprocessor complex subunit DGCR8; diGeorge syndrome critical region 8 homolog; Gy1; N41; D16Wis2; Vo59c07; D16H22S788E; D16H22S1742E
Gene ID	94223
mRNA Refseq	NM_033324
Protein Refseq	NP_201581
UniProt ID	Q9EQM6

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