

## **Product datasheet for TP510572**

## OriGene Technologies, Inc.

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## Dgcr8 (NM\_033324) Mouse Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Purified recombinant protein of Mouse DGCR8, microprocessor complex subunit (Dgcr8), with C-

terminal MYC/DDK tag, expressed in HEK293T cells, 20ug

Species: Mouse

**Expression Host:** HEK293T

Expression cDNA Clone or AA

>MR210572 protein sequence Red=Cloning site Green=Tags(s)

Sequence:

METYESPSPLPREPAGEAMMENRACPFQVLPHEQSPPPPLQTSSDAEVMDVGSGGDGQSEPPADDPFNFY GASLLSKGSFSKGRLLIDPNCSGHSPRTARHAPAVRKFSPDLKLLKDVKISVSFTESCRSKDRKVLYTGV ERSTRPECGQLLSPVSGDVHACPFGGSVGNGVGLGGESADKKDEENELDQEKRVEYAVLDELEDFTDNLE LDEEGTGGFTAKAIVQRDRVDEEALNFSYEDDFDNDVDALLEEGLCAPKKRRMEEKYGGDSDHPSDGETS VQPMMTKIKTVLKSRGRPPTEPLPDGWIMTFHNSGVPVYLHRESRVVTWSRPYFLGTGSIRKHDPPLSSI PCLHYKKMKDNEEREQNCDLAPSGEVSPVKPLGRSAELDFPLEEPDSMGGDSGSMDEKDPLGAEAAAGAL GQVKAKVEVCKDESVDLEEFRNYLEKRFDFEQVTVKKFRTWAERRQFNREMKRKQAESERPILPANQKLI TLSVQDAPTKKEFVINPNGKSEVCILHEYMQRVLKVRPVYNFFECENPSEPFGASVTIDGVTYGSGTASS KKLAKNKAARATLEILIPDFVKQTSEEKPKDSEELEYFNHISIEDSRVYELTSKAGLLSPYQILHECLKR

NHGMGDTSIKFEVVPGKNQKSEYVMACGKHTVRGWCKNKRVGKQLASQKILQLLHPHVKNWGSLLRMYGR ESSKMVKQETSDKSVIELQQYAKKNRPNLHILSKLQEEMKRLAAEREETRKKPKMSIVASAQPGGEPLCT

VDV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-MYC/DDK
Predicted MW: 86.8 kDa

**Concentration:** >0.05 μg/μL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

**Storage:** Store at -80°C after receiving vials.





## Dgcr8 (NM\_033324) Mouse Recombinant Protein - TP510572

Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling

conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** NP 201581

**Locus ID:** 94223

UniProt ID: Q9EQM6

RefSeq Size: 4226

Cytogenetics: 16 11.31 cM

RefSeq ORF: 2322

**Synonyms:** D16H22S788E; D16H22S1742E; D16Wis2; Gy1; mir-1306; N41; Vo59c07

**Summary:** 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 (PubMed:17259983). 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-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 (By similarity). Involved in the silencing of embryonic stem cell self-renewal

(PubMed:17259983).[UniProtKB/Swiss-Prot Function]