diagenode
A Hologic Company

TECHNICAL DATASHEET

DGCR8 polyclonal antibody

Other names: Gy1, DGCRK6, C22orf12, pasha

Cat. No. C15310247 (CS-PA027-100)

Type: Polyclonal

Source: Rabbit

Lot #: A1039-001

Size: 100 µl

Concentration: not determined

Specificity: Mouse: positive / Other species: not tested

Purity: Whole antiserum from rabbit containing 0.05% azide.

Storage: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Description: Polyclonal antibody raised in rabbit against mouse DGCR8 (DiGeorge syndrome critical region gene 8) using two KLH-conjugated synthetic peptides containing a sequence from the N-terminal and the central region of the protein, respectively.

Applications

	Suggested dilution	Results
ELISA	1:500	Fig 1

*The optimal dilution for other applications should be determined by the end user. For WB we suggest starting with a 1:1,000 dilution

Target description

DGCR8 (UniProtKB/Swiss-Prot entry Q8WYQ5) is a component of the microprocessor complex that acts as a RNA- and heme-binding protein and is involved in the initial step of microRNA (miRNA) biogenesis. This 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 functions 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. This releases 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. DGCR8 is involved in the silencing of embryonic stem cells self-renewal.

Results

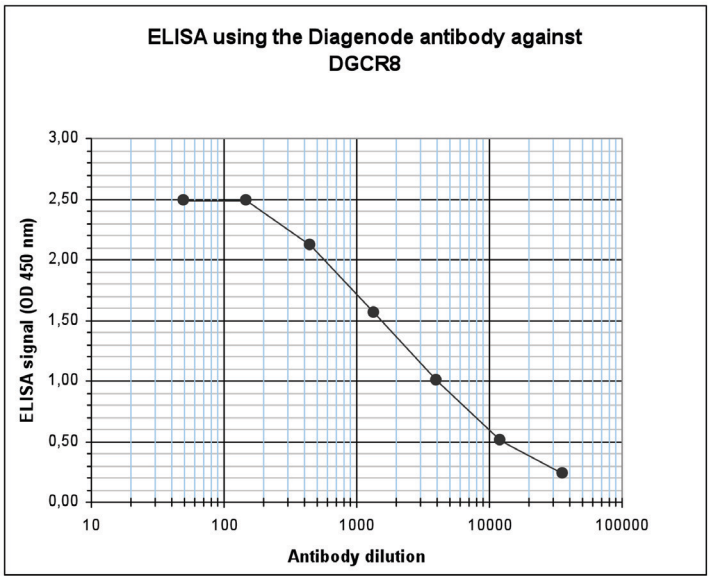

Figure 1. Determination of the antibody titer

To determine the titer of the antibody, an ELISA was performed using a serial dilution of the Diagenode antibody directed against mouse DGCR8 (cat. No. CS-PA027-100). The plates were coated with the peptides used for immunization of the rabbit. By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1:8,100.

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