

Anti-DGCR8 Rabbit Monoclonal Antibody Catalog # ABO13647

Specification

Anti-DGCR8 Rabbit Monoclonal Antibody - Product Information

Application	WB, IF, ICC, IP
Primary Accession	Q8WYQ5
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-DGCR8 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Anti-DGCR8 Rabbit Monoclonal Antibody - Additional Information

Gene ID 54487

Other Names

Microprocessor complex subunit DGCR8, DiGeorge syndrome critical region 8, DGCR8, C22orf12, DGCRK6

Calculated MW

86045 MW KDa

Application Details

WB 1:500-1:2000
ICC/IF 1:100-1:500
IP 1:50

Subcellular Localization

Nucleus. Nucleus, nucleolus. Colocalizes with nucleolin and DROSHA in the nucleolus. Mostly detected in the nucleolus as electron-dense granular patches around the fibrillar center (FC) and granular component (GC). Also detected in the nucleoplasm as small foci adjacent to splicing speckles near the chromatin structure. Localized with DROSHA in GW bodies (GWBs), also known as P-bodies (PubMed:17159994).

Tissue Specificity

Ubiquitously expressed..

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human DGCR8

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-DGCR8 Rabbit Monoclonal Antibody - Protein Information

Name DGCR8

Synonyms C22orf12, DGCRK6

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 from the junction to release hairpin-shaped pre-miRNAs that are subsequently cut by the cytoplasmic DICER to generate mature miRNAs (PubMed: [26027739](http://www.uniprot.org/citations/26027739), PubMed: [26748718](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15531877), PubMed: [15574589](http://www.uniprot.org/citations/15574589), PubMed: [15589161](http://www.uniprot.org/citations/15589161), PubMed: [16751099](http://www.uniprot.org/citations/16751099), PubMed: [16906129](http://www.uniprot.org/citations/16906129), PubMed: [16963499](http://www.uniprot.org/citations/16963499), PubMed: [17159994](http://www.uniprot.org/citations/17159994)). Specifically recognizes and binds N6-methyladenosine (m6A)-containing pri-miRNAs, a modification required for pri-miRNAs processing (PubMed: [25799998](http://www.uniprot.org/citations/25799998)). Involved in the silencing of embryonic stem cell self-renewal (By similarity). Plays also a role in DNA repair by promoting the recruitment of RNF168 to RNF8 and MDC1 at DNA double-strand breaks and subsequently the clearance of DNA breaks (PubMed: [34188037](http://www.uniprot.org/citations/34188037)).

Cellular Location

Nucleus. Nucleus, nucleolus. Note=Colocalizes with nucleolin and DROSHA in the nucleolus. Mostly detected in the nucleolus as electron-dense granular patches around the fibrillar center (FC) and granular component (GC). Also detected in the nucleoplasm as small foci adjacent to splicing speckles near the chromatin structure. Localized with DROSHA in GW bodies (GWBs), also known as P-bodies (PubMed:17159994)

Tissue Location

Ubiquitously expressed.

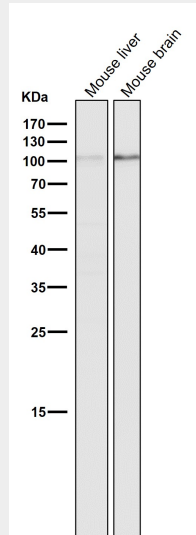
Anti-DGCR8 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

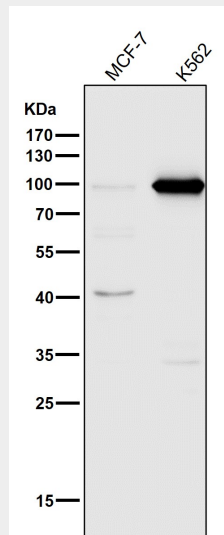
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

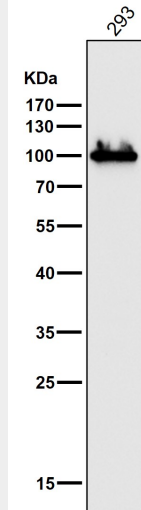
Anti-DGCR8 Rabbit Monoclonal Antibody - Images



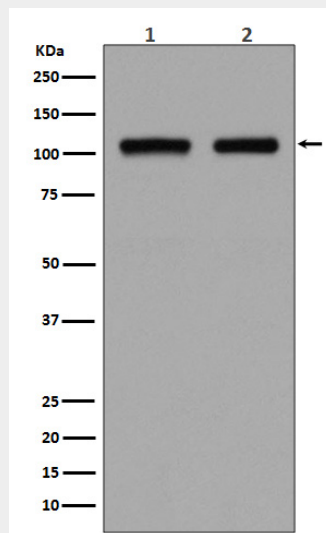
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of DGCR8 expression in (1) HEK293 cell lysate; (2) HeLa cell lysate.