

Rabbit DGCR8 Polyclonal Antibody | anti-DGCR8 antibody

DGCR8 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA323663	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

DGCR8; Polyclonal Antibody; DGCR8 Antibody; DGCRK6; C22orf12; D16H22S788E; D16Wis2; DGCR 8; Dgcr8; DGCR8 microprocessor complex subunit; DGCR8_HUMAN; DGCRK 6; DiGeorge syndrome critical region 8; DiGeorge syndrome critical region gene 8; Gy1; Microprocessor complex subunit DGCR8; pasha; anti-DGCR8 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	DGCR8 antibody detects endogenous levels of total DGCR8
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	740
Applicable Applications for anti-DGCR8 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human DGCR8
Subcellular Location	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.
Tissue Specificity	Ubiquitously expressed.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Xenopus
Similarity	Pig (100%), Zebrafish (86%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (86%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA323663 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of DGCR8 using HeLa whole cell lysates

ADDITIONAL INFORMATION

Related Product Information for anti-DGCR8 antibody

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-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).

Subunit Structure: Monomer; in absence of heme. Homodimer; the association with heme promotes its dimerization (PubMed:17159994). Component of the microprocessor complex, or pri-miRNA processing protein complex, which is composed of DROSHA and DGCR8 (PubMed:15589161, PubMed:15574589, PubMed:15531877, PubMed:16751099, PubMed:19135890, PubMed:26027739, PubMed:26748718). The microprocessor complex is a heterotrimer; each of the two DROSHA RNase III domains binds one DGCR8 (via C-terminal region) (PubMed:26027739, PubMed:26748718). Interacts with ILF3, NCL and DROSHA (PubMed:17765891).

Similarity: Both DRBM domains are required for efficient binding to pri-miRNA. The region between residues 276 and 498 has an autoinhibitory function on pri-miRNA processing activity.

NCBI AND UNIPROT INFORMATION

NCBI GI #	298358598
NCBI GeneID	54487
NCBI Accession #	NP_001177255.1
NCBI GenBank Nucleotide #	NM_001190326.1
UniProt Accession #	Q8WYQ5; Q6DCB2; Q6MZE9; Q6Y2L0; Q96G39; Q96GP8; Q9H6L8; Q9H6T7; Q9NRW2; B2R8G1
Molecular Weight	Observed: 100 kDa Predicted: 87 kDa
NCBI Official Full Name	microprocessor complex subunit DGCR8 isoform 2
NCBI Official Synonym Full Names	DGCR8, microprocessor complex subunit
NCBI Official Symbol	DGCR8
NCBI Official Synonym Symbols	Gy1; pasha; DGCRK6; C22orf12
NCBI Protein Information	microprocessor complex subunit DGCR8
UniProt Protein Name	Microprocessor complex subunit DGCR8
UniProt Gene Name	DGCR8

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/dgcr8-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/323663>