

Product datasheet

APC Anti-DGCR8 antibody [EPR18757] ab221302

Recombinant RabMAb

2 Images

Overview

Product name	APC Anti-DGCR8 antibody [EPR18757]
Description	APC Rabbit monoclonal [EPR18757] to DGCR8
Host species	Rabbit
Conjugation	APC. Ex: 645nm, Em: 660nm
Tested applications	Suitable for: Flow Cyt (Intra)
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Recombinant fragment within Human DGCR8 aa 400 to the C-terminus. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. Database link: Q8WYQ5
Positive control	Flow Cyt (intra): HeLa cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR18757
Isotype	IgG

Applications

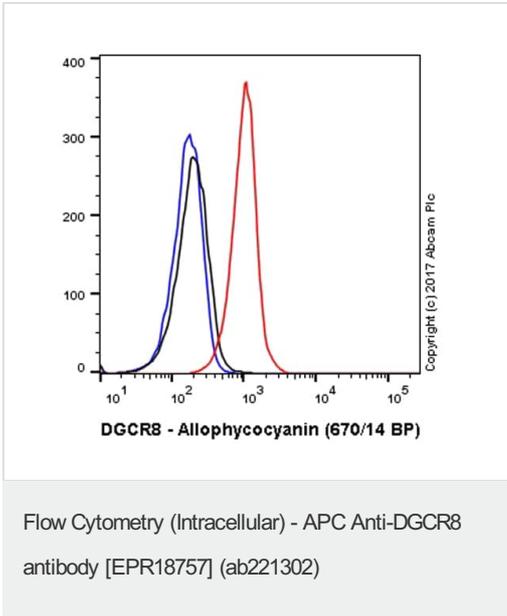
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab221302 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/500.

Target

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. 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. Involved in the silencing of embryonic stem cells self-renewal.
Tissue specificity	Ubiquitously expressed.
Sequence similarities	Contains 2 DRBM (double-stranded RNA-binding) domains. Contains 1 WW domain.
Domain	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.
Cellular 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.

Images



Overlay histogram showing HeLa cells stained with ab221302 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab221302, 1/500 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was rabbit IgG (monoclonal) Allophycocyanin used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 40 mW Red laser (640nm) and 670/14 bandpass filter.

This antibody gave a positive signal in HeLa cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

APC Anti-DGCR8 antibody [EPR18757] (ab221302)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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