

Product datasheet

Anti-Drosha antibody ab12286

★★★★★ [9 Abreviews](#) [87 References](#) [6 Images](#)

Overview

Product name	Anti-Drosha antibody
Description	Rabbit polyclonal to Drosha
Host species	Rabbit
Tested applications	Suitable for: WB, ICC
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to Human Drosha aa 1-100 (internal sequence). (Peptide available as ab12307)
General notes	<p>Three isoforms of 159, 156 and 143 kDa.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab12286 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
WB	★★★★☆ (4)	Use a concentration of 1 µg/ml. Predicted molecular weight: 159 kDa.
ICC	★★★★☆ (1)	Use a concentration of 1 µg/ml.

Target

Function

Ribonuclease III double-stranded (ds) RNA-specific endoribonuclease 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, DROSHA cleaves the 3' and 5' strands of a stem-loop in pri-miRNAs (processing center 11 bp from the dsRNA-ssRNA junction) to release hairpin-shaped pre-miRNAs that are subsequently cut by the cytoplasmic DICER to generate mature miRNAs. Involved also in pre-rRNA processing. Cleaves double-strand RNA and does not cleave single-strand RNA. Involved in the formation of GW bodies.

Tissue specificity

Ubiquitous.

Sequence similarities

Contains 1 DRBM (double-stranded RNA-binding) domain.
Contains 2 RNase III domains.

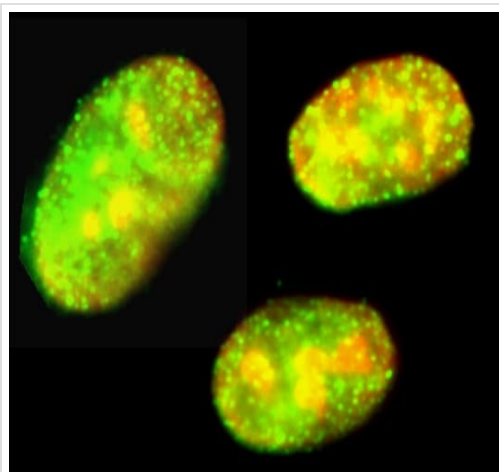
Domain

The 2 RNase III domains form an intramolecular dimer where the domain 1 cuts the 3' strand while the domain 2 cleaves the 5' strand of pri-miRNAs, independently of each other.

Cellular localization

Nucleus. Nucleus > nucleolus. A fraction is translocated to the nucleolus during the S phase of the cell cycle. Localized in GW bodies (GWBs), also known as P-bodies.

Images

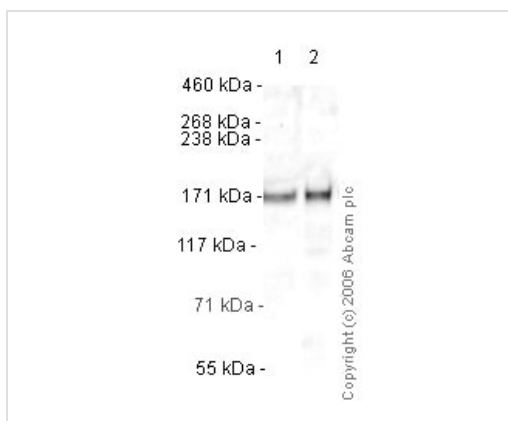


Immunocytochemistry - Anti-Drosha antibody - ChIP

Grade (ab12286)

This image is courtesy of Ahmad M. Khalil and Daniel J. Driscoll, University of Florida College of Medicine Genetics Institute.

Human female amniocytes immunostained with ab12286 Drosha (FITC) (1/25 dilution). The DNA is labelled red with propidium iodide. This image was submitted as part of a review by Ahmad Khalil.



Western blot - Anti-Drosha antibody - ChIP Grade (ab12286)

All lanes : Anti-Drosha antibody (ab12286) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

Lysates/proteins at 20 µg per lane.

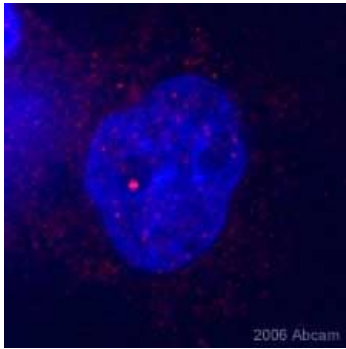
Secondary

All lanes : Goat polyclonal to Rabbit IgG (Alexa Fluor® 680) at 1/15000 dilution

Performed under reducing conditions.

Predicted band size: 159 kDa

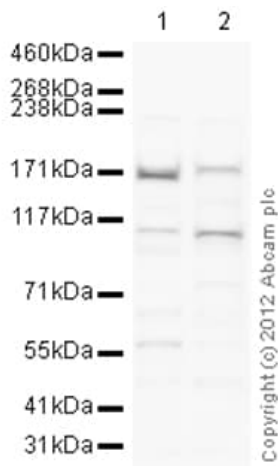
Observed band size: 170 kDa



Immunocytochemistry - Anti-Drosha antibody
(ab12286)

ab12286 at a 1/25 dilution staining human HeLa cells by immunocytochemistry. The antibody was incubated with the cells for 1 hour and then detected using a Cy3 conjugated donkey anti-rabbit polyclonal antibody.

This image is courtesy of an Abreview submitted on **7 February 2006**.



Western blot - Anti-Drosha antibody - ChIP Grade
(ab12286)

All lanes : Anti-Drosha antibody (ab12286) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

Lane 2 : NIH 3T3 (Mouse embryonic fibroblast cell line) Nuclear Lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

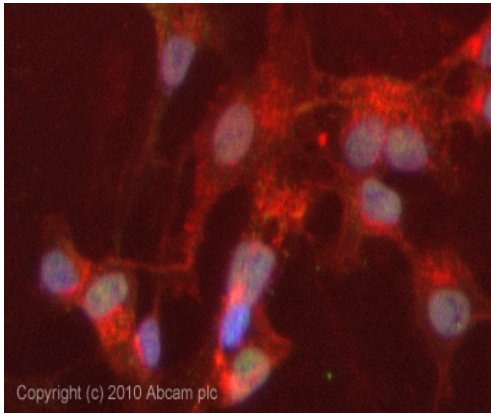
Predicted band size: 159 kDa

Observed band size: 170 kDa

Additional bands at: 115 kDa. We are unsure as to the identity of these extra bands.

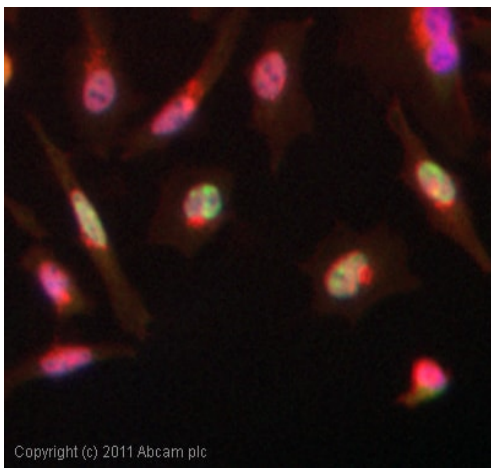
Exposure time: 12 minutes

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.



Immunocytochemistry - Anti-Drosha antibody
(ab12286)

ICC/IF image of ab12286 stained HepG2 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab12286, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunocytochemistry - Anti-Drosha antibody
(ab12286)

ICC/IF image of ab12286 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (**ab12286**, 5µg/ml) overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit IgG - H&L, pre-adsorbed (**ab96899**) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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

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