abcam

ab315233

Anti-Dicer antibody [EPR27386-39] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR27386-39
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for human IHC.
Concentration	1.035 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human, Mouse, Rat

Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse, Rat
Dilution info	-
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ChIP-seq

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information DICER1

Function	Double-stranded RNA (dsRNA) endoribonuclease playing a central role in short dsRNA-mediated post-transcriptional gene silencing. Cleaves naturally occurring long dsRNAs and short hairpin pre-microRNAs (miRNA) into fragments of twenty-one to twenty-three nucleotides with 3' overhang of two nucleotides, producing respectively short interfering RNAs (siRNA) and mature microRNAs. SiRNAs and miRNAs serve as guide to direct the RNA-induced silencing complex (RISC) to complementary RNAs to degrade them or prevent their translation. Gene silencing mediated by siRNAs, also called RNA interference, controls the elimination of transcripts from mobile and repetitive DNA elements of the genome but also the degradation of exogenous RNA of viral origin for instance. The miRNA pathway on the other side is a mean to specifically regulate the expression of target genes.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab315233 is the carrier-free version of ab315232.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

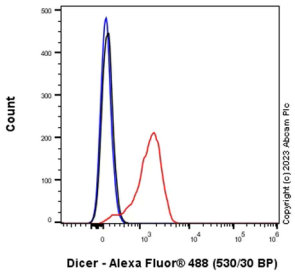
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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9 product images

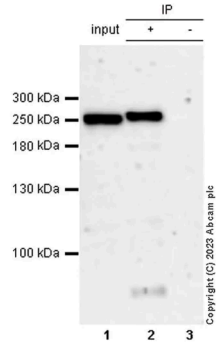


Flow Cytometry (Intracellular) - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

This data was developed using ab315158, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HEK-293 (human embryonic kidney epithelial cell) cells labelling Dicer with ab315232 at 1/50 dilution (1 ug, Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Dicer was immunoprecipitated from 0.35 mg HEK-293 (human embryonic kidney epithelial cell) whole cell lysate with ab315232 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab315232 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: HEK-293 (human embryonic kidney epithelial cell) whole cell lysate

Lane 2: ab315232 IP in HEK-293 (human embryonic kidney epithelial cell) whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab315232 in HEK-293 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

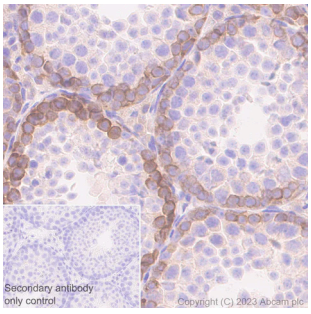
All lanes:
Immunoprecipitation - Anti-Dicer antibody [EPR27386-39] (ab315232) at 1/30 dilution

All lanes:
HEK-293 (human embryonic kidney epithelial cell) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 180s



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

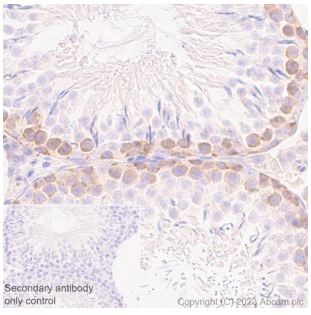
This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling Dicer with ab315232 at 1/100 (4.99 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse testis. The section was incubated with ab315232 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

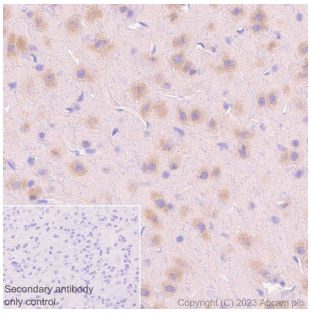
This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat testis tissue labeling Dicer with ab315232 at 1/100 (4.99 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on rat testis. The section was incubated with ab315232 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

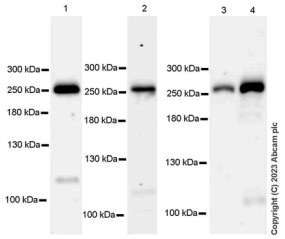
This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Dicer with ab315232 at 1/100 (5.03 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse cerebrum. The section was incubated with ab315232 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Western blot - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Lysates was were freshly made and used for Western blotting immediately to minimize protein degradation.

Exposure time: Lanes 1, 3 and 4: 180 seconds, lane 2: 26 seconds.

All lanes:
Western blot - Anti-Dicer antibody [EPR27386-39] (ab315232) at 1/1000 dilution

Lane 1:
A549 (human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

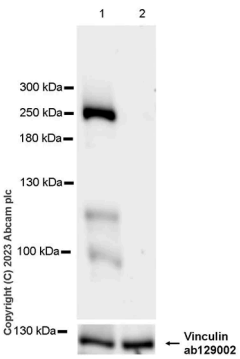
Lane 3:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
HEK-293 (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 250 kDa



Western blot - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

Dicer Western blot staining using rabbit Anti-Dicer antibody

This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, ab315232 was shown to bind specifically to Dicer. A band was observed at 250 kDa in wild-type HAP1 cell lysates whereas no signal observed at this size in DICER1 knockout cell line.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

All lanes:
Western blot - Anti-Dicer antibody [EPR27386-39] (ab315232) at 1/1000 dilution

Lane 1:
Wild-type HAP1 (human chronic myelogenous leukemia near-haploid cell) whole cell lysate at 20 µg

Lane 2:
DICER1 knockout HAP1 whole cell lysate at 20 µg

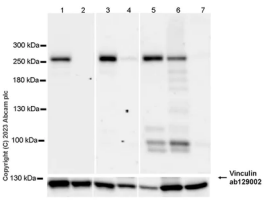
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Performed under reducing conditions.

Observed band size: 250 kDa, 124 kDa

Exposure time: 37s



Western blot - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

Dicer Western blot staining using rabbit Anti-Dicer antibody

This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Low expression: skeletal muscle (PMID: 11889553).

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

Exposure time: Lanes 1-2: 26 seconds, lanes 3-7: 59 seconds.

All lanes:
Western blot - Anti-Dicer antibody [EPR27386-39] (ab315232) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 20 µg

Lane 2:
Mouse skeletal muscle tissue lysate at 20 µg

Lane 3:
Rat testis tissue lysate at 20 µg

Lane 4:
Rat skeletal muscle tissue lysate at 20 µg

Lane 5:
Human brain tissue lysate at 20 µg

Lane 6:
Human testis tissue lysate at 20 µg

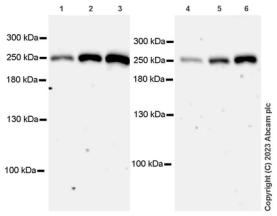
Lane 7:
Human skeletal muscle tissue lysate at 20 µg

Secondary

Lanes 1 - 4:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/2000 dilution

Lanes 5 - 7:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/100000 dilution

Observed band size: 250 kDa, 124 kDa



Western blot - Anti-Dicer antibody [EPR27386-39] - BSA and Azide free (ab315233)

This data was developed using ab315232, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Lysates was were freshly made and used for Western blotting immediately to minimize protein degradation.

All lanes:
Western blot - Anti-Dicer antibody [EPR27386-39] (ab315232) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Mouse liver tissue lysate at 20 µg

Lane 3:
Mouse testis tissue lysate at 20 µg

Lane 4:
Rat brain tissue lysate at 20 µg

Lane 5:
Rat liver tissue lysate at 20 µg

Lane 6:
Rat testis tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 250 kDa

Exposure time: 180s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.