abcam

ab220811

Anti-DUSP6 antibody [EPR129Y] - 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	EPR129Y
Purification technique	Affinity purification Protein A
Concentration	0.994 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information DUSP6

Function	Dual specificity protein phosphatase, which mediates dephosphorylation and inactivation of MAP kinases (PubMed:8670865). Has a specificity for the ERK family (PubMed:8670865). Plays an important role in alleviating chronic postoperative pain (By similarity). Necessary for the normal dephosphorylation of the long-lasting phosphorylated forms of spinal MAPK1/3 and MAP kinase p38 induced by peripheral surgery, which drives the resolution of acute postoperative allodynia (By similarity). Also important for dephosphorylation of MAPK1/3 in local wound tissue, which further contributes to resolution of acute pain (By similarity). Promotes cell differentiation by regulating MAPK1/MAPK3 activity and regulating the expression of AP1 transcription factors (PubMed:29043977).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab220811 is the carrier-free version of ab76310.

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

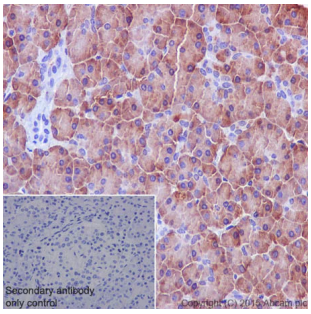
We do not recommend this combination. It is not covered by our product promise.

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.

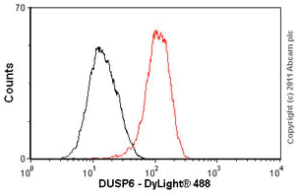
7 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

DUSP6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DUSP6 antibody

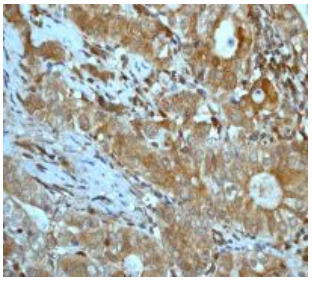
Immunohistochemical staining of paraffin embedded human pancreas with purified ab76310 at a working dilution of 1/100. The secondary antibody used is HRP goat anti-rabbit IgG H&L (ab97051) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76310).



Flow Cytometry (Intracellular) - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

DUSP6 Flow Cytometry (Intracellular) staining using rabbit Anti-DUSP6 antibody

Overlay histogram showing HeLa cells stained with unpurified ab76310 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76310, 1/20 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde/permeabilized with 0.1% PBS-Tween 20 used under the same conditions.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76310).

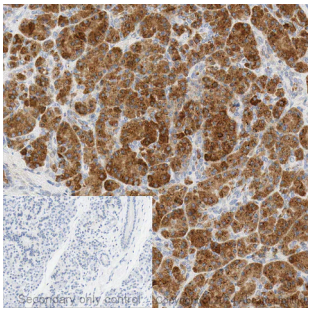


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

DUSP6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DUSP6 antibody

Immunohistochemical staining of paraffin-embedded human gastric carcinoma using unpurified ab76310 at 1/50 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76310).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



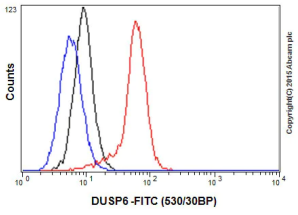
Immunohistochemistry - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76310).

Immunohistochemical analysis of formalin fixed paraffin embedded human pancreas labelling DUSP6 with ab76310 at a concentration of 0.5 µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with a OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was performed with DISCOVERY cell conditioning solution (CC1) 100°C, pH 8.5 for 32 mins.

ab76310 anti-DUSP6 [EPR129Y] was incubated for 16 mins at 37°C. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.

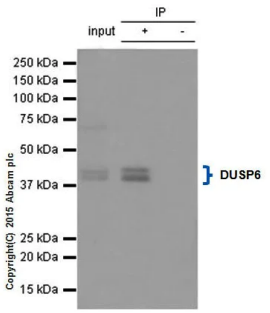
Customers are encouraged to optimise antigen retrieval conditions, antibody concentration, incubation times and temperature for best results in their own IHC assay workflow (automated and manual).



Flow Cytometry (Intracellular) - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

DUSP6 Flow Cytometry (Intracellular) staining using rabbit Anti-DUSP6 antibody

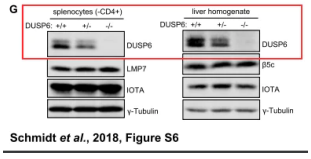
Overlay histogram showing NIH-3T3 cells fixed in 4% PFA and stained with purified ab76310 at a dilution of 1 in 200 (red line). The secondary antibody used was FITC goat anti-rabbit at a dilution of 1 in 500. Rabbit monoclonal IgG was used as an isotype control (black line) and cells incubated in the absence of both primary and secondary antibody were used as a negative control (blue line). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76310).



Immunoprecipitation - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

ab76310 (purified) at 1/20 immunoprecipitating DUSP6 in 10 µg NIH-3T3 (Lanes 1 and 2, observed at 42 and 44 kDa). Lane 3 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500). Blocking buffer and concentration: 5% NFDM/TBST Dilution buffer and concentration: 5% NFDM/TBSTThis data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76310).
All lanes:
Immunoprecipitation - Anti-DUSP6 antibody [EPR129Y] (ab76310)

Predicted band size: 42 kDa



Schmidt C et al., Front Immunol, 9, 2386, 2018
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Western blot - Anti-DUSP6 antibody [EPR129Y] - BSA and Azide free (ab220811)

Immunoblot analysis of indicated proteins in splenocytes after CD4+ sort, liver homogenate or purified CD4+ T cells from WT, DUSP6+/- or DUSP6-/- mice to confirm knockout or heterozygosity for DUSP6 at protein level.
All lanes:
Western blot - Anti-DUSP6 antibody [EPR129Y] (ab76310)

Predicted band size: 42 kDa

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