abcam

Product datasheet

Anti-Arg2 antibody [EPR9473] ab137069

Recombinant RabMAb

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Overview

Product name Anti-Arg2 antibody [EPR9473]

Description Rabbit monoclonal [EPR9473] to Arg2

Host species Rabbit

Tested applications Suitable for: Flow Cyt (Intra), ICC/IF, WB

Species reactivity Reacts with: Human

Immunogen Synthetic peptide within Human Arg2 aa 300-400 (C terminal). The exact sequence is proprietary.

Database link: P78540

Positive control Caco 2, Jurkat and 293T cell lysates; Caco 2 cells; JAR whole cell lysates; HEK-293, GST tagged

Recombinant Human ARG2 protein.

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

- High batch-to-batch consistency and reproducibility

Improved sensitivity and specificityLong-term security of supply

- Long-term security or supp

- 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**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

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 long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

Purity Protein A purified

1

ClonalityMonoclonalClone numberEPR9473

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab137069 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)		1/60. ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1: 100 - 1/10000.
ICC/IF		1/250 - 1/500.
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 39 kDa.

Target

Function

May play a role in the regulation of extra-urea cycle arginine metabolism and also in down-regulation of nitric oxide synthesis. Extrahepatic arginase functions to regulate L-arginine bioavailability to NO synthase. Since NO synthase is found in the penile corpus cavernosum smooth muscle, the clitoral corpus cavernosum and the vagina, arginase II plays a role in both male and female sexual arousal. It is therefore a potential target for the treatment of male and female sexual arousal disorders.

Tissue specificity

Expressed most strongly in kidney and prostate, much less strongly in the brain, skeletal muscle, placenta, lung, mammary gland, macrophage, uterus, testis and gut, but apparently not in the liver, heart and pancreas.

Pathway

Nitrogen metabolism; urea cycle; L-ornithine and urea from L-arginine: step 1/1.

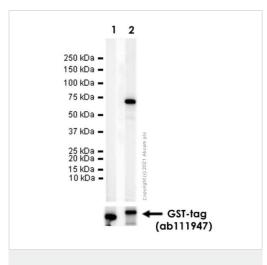
Sequence similarities

Belongs to the arginase family.

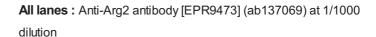
Cellular localization

Mitochondrion.

Images



Western blot - Anti-Arg2 antibody [EPR9473] (ab137069)



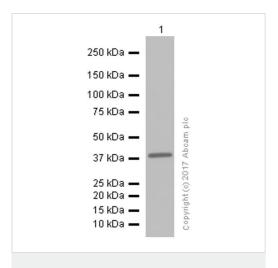
Lane 1: GST tagged Recombinant Human ARG1 protein (full-length, aa 1 to 322) (61 KDa)

Lane 2: GST tagged Recombinant Human ARG2 protein (full-length, aa 1 to 354) (65 KDa)

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 39 kDa **Observed band size:** 65 kDa



Western blot - Anti-Arg2 antibody [EPR9473] (ab137069)

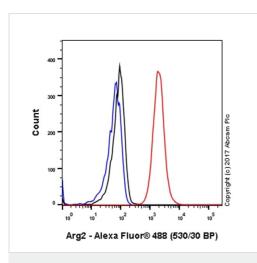
Anti-Arg2 antibody [EPR9473] (ab137069) at 1/20000 dilution (purified) + Caco-2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysates at 20 μ g

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

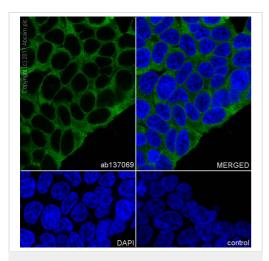
Predicted band size: 39 kDa

Blocking and diluting buffer: 5% NFDM/TBST



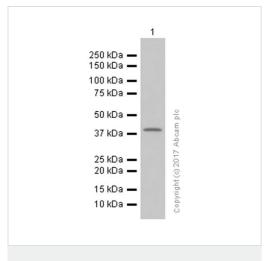
Flow Cytometry (Intracellular) - Anti-Arg2 antibody [EPR9473] (ab137069)

Intracellular Flow Cytometry analysis of HEK-293 (Human embryonic kidney epithelial cell) cells labeling Arg2 with purified ab137069 at 1/60 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit lgG (Alexa Fluor $^{\!(\!R\!)}\!\!$ 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal lgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-Arg2 antibody [EPR9473] (ab137069)

Immunocytochemistry/ Immunofluorescence analysis of 293T (Human embryonic kidney epithelial cell) cells labeling Arg2 with Purified ab137069 at 1:500 dilution (1.2 μ g/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% triton X-100. **ab150077** Goat anti rabbit lgG (Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Arg2 antibody [EPR9473] (ab137069)

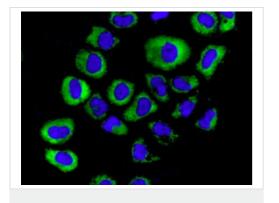
Anti-Arg2 antibody [EPR9473] (ab137069) at 1/10000 dilution (purified) + JAR (Human placenta choriocarcinoma epithelial cell) whole cell lysates at 20 μ g

Secondary

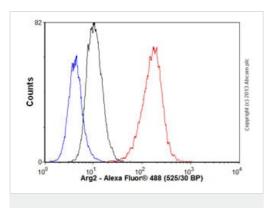
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 39 kDa

Blocking and diluting buffer: 5% NFDM/TBST

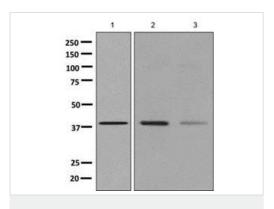


Immunocytochemistry/ Immunofluorescence - Anti-Arg2 antibody [EPR9473] (ab137069) Immunofluorescent analysis of Caco 2 cells labelling Arg2 with ab137069 at 1/250 dilution.



Flow Cytometry (Intracellular) - Anti-Arg2 antibody [EPR9473] (ab137069)

Overlay histogram showing HEK293 cells stained with ab137069 (red line). The cells were fixed with 80% 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 (ab137069, 1/10000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit lgG (monoclonal) (0.1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HEK293 cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Arg2 antibody [EPR9473] (ab137069)

All lanes : Anti-Arg2 antibody [EPR9473] (ab137069) at 1/1000 dilution

Lane 1 : Caco 2 cell lysate
Lane 2 : 293T cell lysate
Lane 3 : Jurkat cell lysate

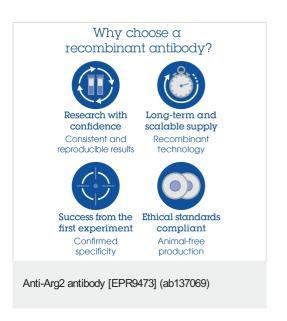
Lysates/proteins at 10 µg per lane.

Secondary

All lanes: goat anti-rabbit HRP at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 39 kDa



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