abcam

Product datasheet

Anti-Natriuretic peptides A antibody [EPR20247] ab209232

Recombinant RabMAb

3 References 8 Images

Overview

Product name	Anti-Natriuretic peptides A antibody [EPR20247]
Description	Rabbit monoclonal [EPR20247] to Natriuretic peptides A
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, IHC-Fr, IP, mIHC
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal heart and rat heart tissue lysates. IHC-P: Human heart, rat auricle and rat ventricle tissues. IHC-Fr: Rat heart tissue. IP: Rat heart lysate. mIHC: Human cardiac muscle tissue.
General notes	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 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. 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: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR20247
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab209232 in the following tested applications.

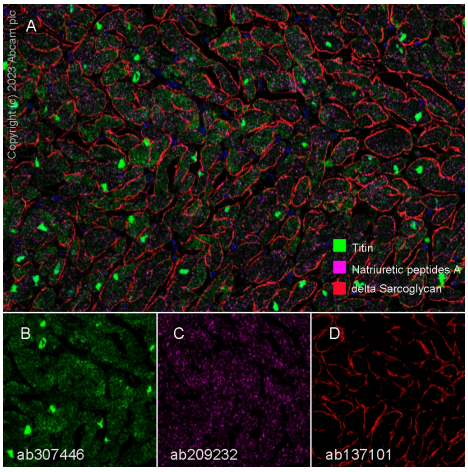
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 16 kDa.
IHC-P		1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/100. Antigen retrieval: Heated citrate solution (10mM citrate pH 6.0 + 0.05% Tween-20).
IP		1/30.
mIHC		Use a concentration of 0.241 µg/ml.

Target

Function	Hormone playing a key role in cardiovascular homeostasis through regulation of natriuresis, diuresis, and vasodilation. Also plays a role in female pregnancy by promoting trophoblast invasion and spiral artery remodeling in uterus. Specifically binds and stimulates the cGMP production of the NPR1 receptor. Binds the clearance receptor NPR3.
Involvement in disease	Atrial standstill 2 Atrial fibrillation, familial, 6
Sequence similarities	Belongs to the natriuretic peptide family.
Post-translational modifications	Cleaved by CORIN upon secretion to produce the functional hormone. Atrial natriuretic factor: Cleaved by MME. The cleavage initiates degradation of the factor and thereby regulate its activity.
Cellular localization	Secreted.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

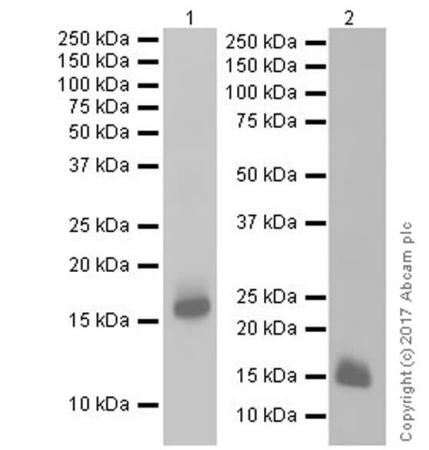
Fluorescence multiplex immunohistochemical analysis of the human cardiac muscle (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-delta Sarcoglycan (**ab137101**, red; Opal™690), anti-Titin (**ab307446**, green; Opal™520) and anti-Natriuretic peptides A (ab209232, magenta; Opal™570) on human cardiac muscle. Panel B: anti-Titin displayed nucleus and cytoplasm expression. Panel C: anti-Natriuretic peptides A displayed granular cytoplasmic expression. Panel D: anti-delta Sarcoglycan displayed membrane expression. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of **ab137101** at 1/1000 (1.043 µg/ml) dilution, **ab307446** at 1/500 (0.95 µg/ml) dilution, and ab209232 at 1/3000 (0.241 µg/ml) dilution for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. DAPI (blue) was used as a nuclear counter stain.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Western blot - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

All lanes : Anti-Natriuretic peptides A antibody [EPR20247] (ab209232) at 1/1000 dilution

Lane 1 : Human fetal heart lysate
Lane 2 : Rat heart lysate

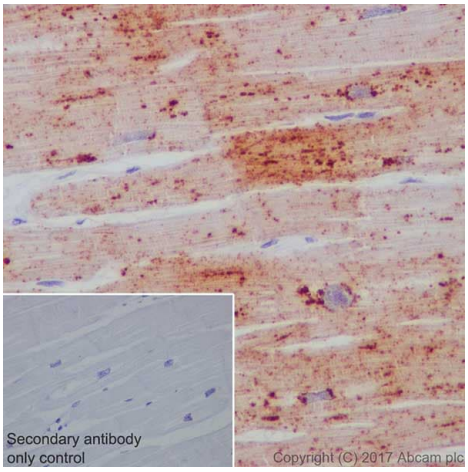
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

Predicted band size: 16 kDa
Observed band size: 16 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 2 seconds; Lane 2: 15 seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

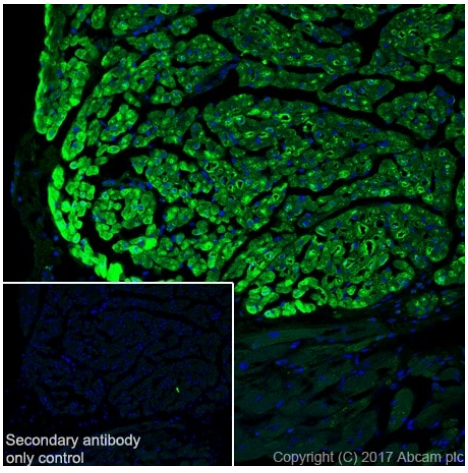
Immunohistochemical analysis of paraffin-embedded human heart tissue labeling Natriuretic peptides A with ab209232 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Granularly cytoplasmic and perinuclear staining on human heart (PMID: 2942710, PMID: 1824903).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

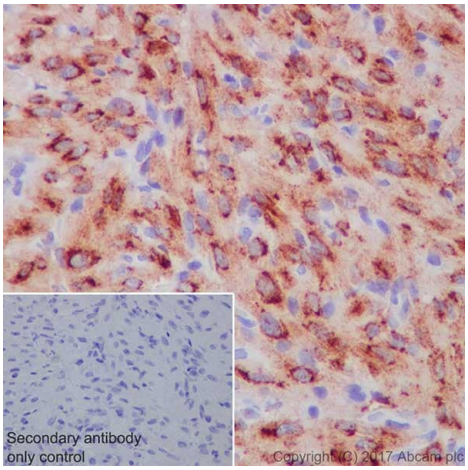
Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat heart tissue labeling Natriuretic peptides A with ab209232 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).

Cytoplasmic staining on the auricula of rat heart (PMID: 2942710, PMID: 1824903).

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

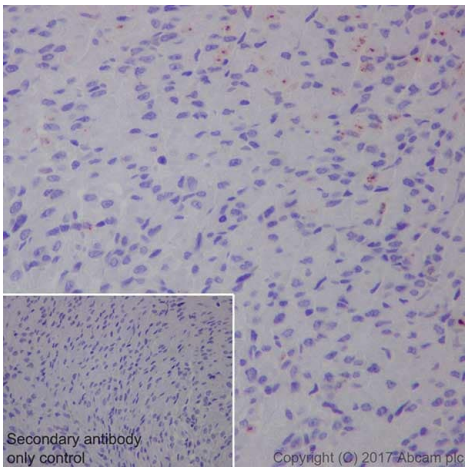
Immunohistochemical analysis of paraffin-embedded rat auricle tissue labeling Natriuretic peptides A with ab209232 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Granularly cytoplasmic and perinuclear staining on rat auricle (PMID: 2942710, PMID: 1824903).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

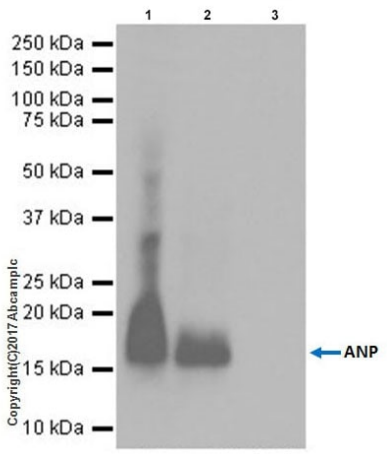
Immunohistochemical analysis of paraffin-embedded rat ventricle tissue labeling Natriuretic peptides A with ab209232 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Weak staining on rat ventricle (PMID: 2942710, PMID: 1824903).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

Natriuretic peptides A was immunoprecipitated from 0.35 mg of rat heart lysate with ab209232 at 1/30 dilution.

Western blot was performed from the immunoprecipitate using ab209232 at 1/500 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Rat heart lysate 10 µg (Input).

Lane 2: ab209232 IP in rat heart lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab209232 in rat heart lysate.

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

Exposure time: 1 second.

Anti-Natriuretic peptides A antibody [EPR20247] (ab209232)

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