abcam

Product datasheet

Anti-Natriuretic peptides A antibody [EPR20247] - BSA and Azide free ab225873

Recombinant RabMAb

7 Images

Overview

Product name	Anti-Natriuretic peptides A antibody [EPR20247] - BSA and Azide free
Description	Rabbit monoclonal [EPR20247] to Natriuretic peptides A - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, IHC-Fr, IP
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	ab225873 is the carrier-free version of **ab209232**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20247
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab225873 in the following tested applications.

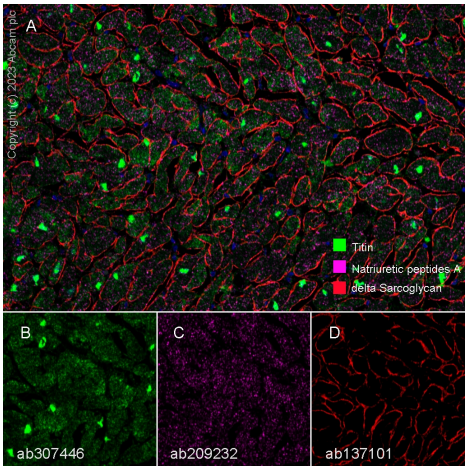
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 16 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		Use at an assay dependent concentration. Antigen retrieval: Heated citrate solution (10mM citrate pH 6.0 + 0.05% Tween-20).
IP		Use at an assay dependent concentration.

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



Multiplex immunohistochemistry - Anti-Natriuretic peptides A antibody [EPR20247] - BSA and Azide free (ab225873)

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

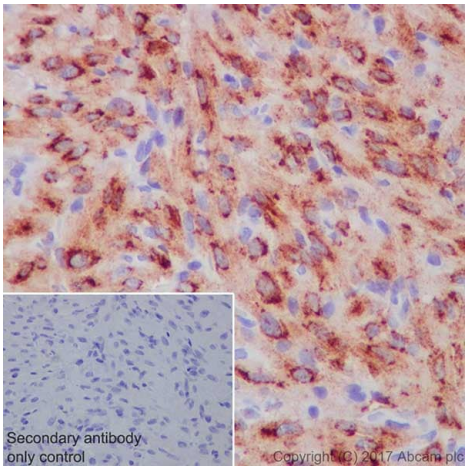
Panel A: merged staining of anti-delta Sarcoglycan (**ab137101**, red; Opal™690), anti-Titin (**ab307446**, green; Opal™520) and anti-Natriuretic peptides A (**ab209232**, magenta; Opal™570) on human cardiac muscle. Panel B: anti-Titin displayed nucleus and cytoplasm expression. Panel C: anti-Natriuretic 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209232**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Natriuretic peptides A antibody [EPR20247] - BSA and Azide free (ab225873)

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.

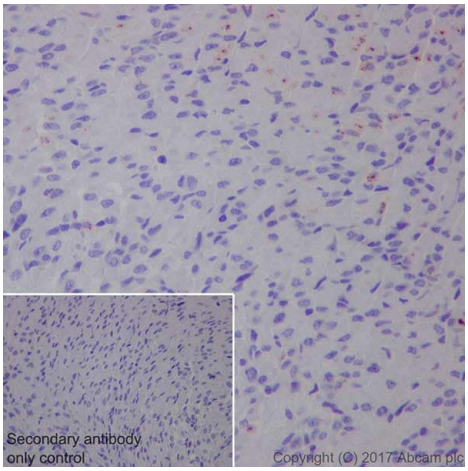
Granularly cytoplasmic and perinuclear staining on rat auricle (PMID: 2942710, PMID: 1824903).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209232**).

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] - BSA and Azide free (ab225873)

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.

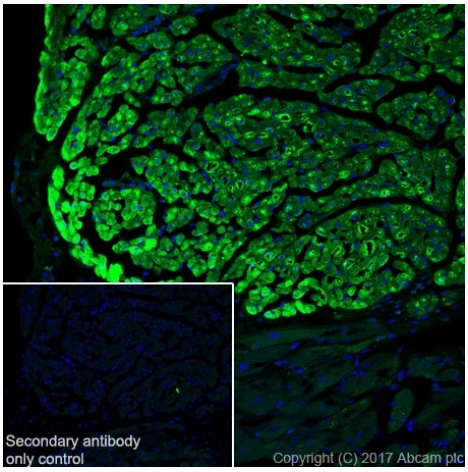
Weak staining on rat ventricle (PMID: 2942710, PMID: 1824903).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209232**).

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] - BSA and Azide free (ab225873)

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).

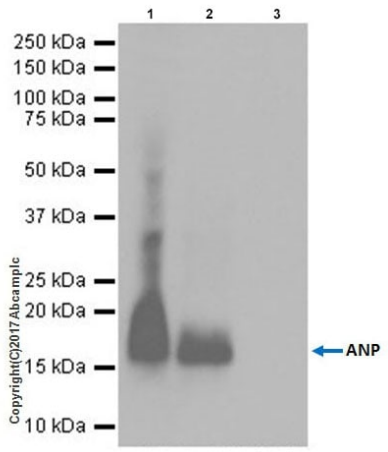
Cytoplasmic staining on the auricula of rat heart (PMID: 2942710, PMID: 1824903).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209232**).

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] - BSA and Azide free (ab225873)

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).

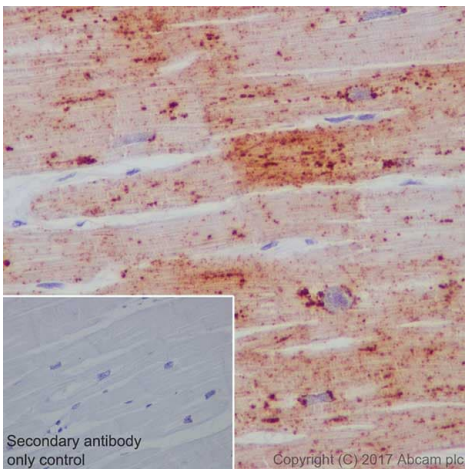
Lane 2: **ab209232** IP in rat heart lysate.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209232**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Natriuretic peptides A antibody [EPR20247] - BSA and Azide free (ab225873)

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.

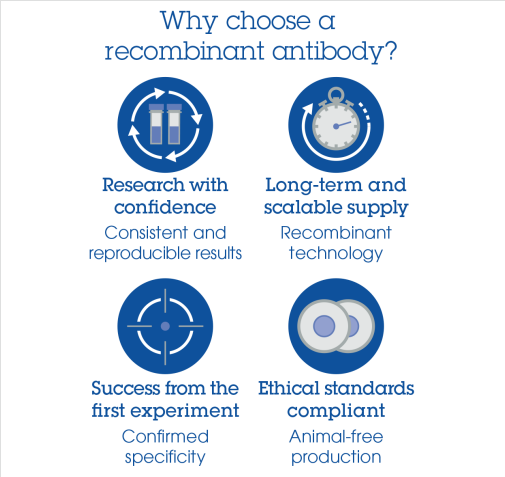
Granularly cytoplasmic and perinuclear staining on human heart (PMID: 2942710, PMID: 1824903).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab209232**).

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



Anti-Natriuretic peptides A antibody [EPR20247] - BSA and Azide free (ab225873)

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