

# **Product datasheet**

# Anti-Natriuretic peptides A antibody [EPR22089-283] -BSA and Azide free ab237632

Recombinant RabMAb

7 Images

Anti-Natriuretic peptides A antibody [EPR22089-283] - BSA and Azide free
Rabbit monoclonal [EPR22089-283] to Natriuretic peptides A - BSA and Azide free
Rabbit
Suitable for: WB, IHC-P, IHC-Fr, IP
Reacts with: Mouse, Rat
Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
IHC-P: Mouse heart tissue.
ab237632 is the carrier-free version of ab225844.
Our <u>carrier-free</u> 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 <b><u>conjugation kits</u></b> 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 <sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar <sup>®</sup> is a trademark of Fluidigm Canada Inc.
<ul> <li>This product is a recombinant monoclonal antibody, which offers several advantages including:</li> <li>High batch-to-batch consistency and reproducibility</li> <li>Improved sensitivity and specificity</li> <li>Long-term security of supply</li> <li>Animal-free production</li> <li>For more information see here.</li> <li>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb<sup>®</sup> patents.</li> </ul>

### 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	EPR22089-283
lsotype	lgG

## Applications

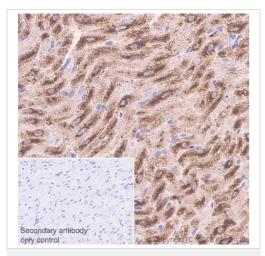
The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab237632 in the following tested applications.

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

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 17 kDa (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.
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.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Natriuretic peptides A antibody [EPR22089-283] - BSA and Azide free (ab237632)



Immunoprecipitation - Anti-Natriuretic peptides A antibody [EPR22089-283] - BSA and Azide free (ab237632) Immunohistochemical analysis of paraffin-embedded rat heart atrium tissue labeling Natriuretic peptides A with **ab225844** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining in cardiac muscle of rat atrium (PMID: 2942710; PMID:25532015; PMID: 1824903). Counterstained 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 (<u>ab225844</u>).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Natriuretic peptides A was immunoprecipitated from 0.35 mg Mouse heart tissue lysate with <u>ab225844</u> at 1/1000 dilution. Western blot was perfromed from the immunoprecipitate using <u>ab225844</u> at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (<u>ab131366</u>) was used for detection at 1/1000 dilution.

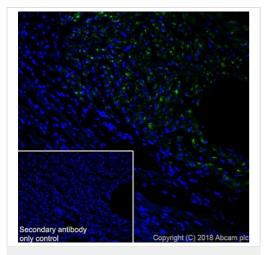
Lane 1: Mouse heart lysate 10 µg (Input).

Lane 2: <u>ab225844</u> IP in Mouse heart tissue lysate (+).

Lane 3: Rabbit monoclonal IgG (<u>ab172730</u>) instead of <u>ab225844</u> in Mouse heart lysate (-).

Blocking and dilution buffer and concentration: 5% NFDM/TBST Exposure time: 10 seconds

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab225844</u>).

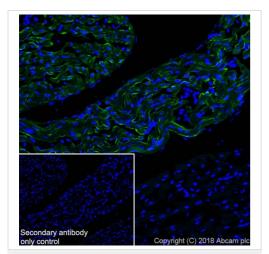


Immunohistochemistry (Frozen sections) - Anti-Natriuretic peptides A antibody [EPR22089-283] -BSA and Azide free (ab237632) Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat heart tissue labeling Natriuretic peptides A with <u>ab225844</u> at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution (green). Cytoplasmic staining in cardiac muscle of rat atrium is observed.

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody 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 (**ab225844**).

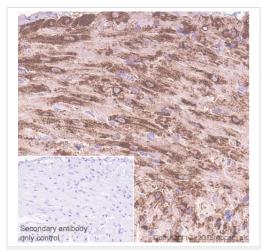


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This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab225844</u>).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Natriuretic peptides A antibody [EPR22089-283] - BSA and Azide free (ab237632) Immunohistochemical analysis of paraffin-embedded mouse heart atrium tissue labeling Natriuretic peptides A with <u>ab225844</u> at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining in cardiac muscle of mouse atrium (PMID: 2942710; PMID:25532015; PMID: 1824903). Counterstained 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 (<u>ab225844</u>).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

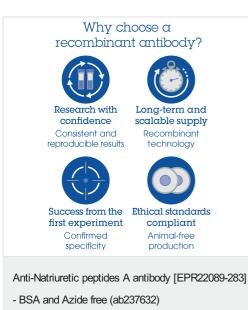


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Natriuretic peptides A antibody [EPR22089-283] - BSA and Azide free (ab237632) Immunohistochemical analysis of paraffin-embedded mouse heart tissue labeling Natriuretic peptides A with <u>ab225844</u> at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Strong cytoplasmic staining mainly in the atria and at lower levels in ventricle of mouse heart (PMID: 2942710; PMID:25532015; PMID: 1824903). Counterstained 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 (<u>ab225844</u>).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



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