abcam

ab319677

Alexa Fluor® 647 Anti-NPR-C antibody [EPR12716] - C-terminal

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12716
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Target Binding Affinity

Expected

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

Antibody Labelling

Expected

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

Flow Cyt (Intra)

Expected

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

Target data

See full target information NPR3

Function	Receptor for the natriuretic peptide hormones, binding with similar affinities atrial natriuretic peptide NPPA/ANP, brain natriuretic peptide NPPB/BNP, and C-type natriuretic peptide NPPC/CNP. May function as a clearance receptor for NPPA, NPPB and NPPC, regulating their local concentrations and effects. Acts as a regulator of osteoblast differentiation and bone growth by binding to its ligand osteocrin, thereby preventing binding between NPR3/NPR-C and natriuretic peptides, leading to increase cGMP production (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

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.

How are conjugated primary antibodies validated?
This conjugated primary antibody is released using a quantitative quality control method that evaluates binding affinity post-conjugation and efficiency of antibody labeling.
For suitable applications and species reactivity, please refer to the unconjugated version of this clone.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The NPR-C also known as natriuretic peptide receptor C functions as an important regulator in the homeostasis of cardiovascular and renal functions. It is also referred to as atrial natriuretic peptide receptor C (ANPRC). This protein does not possess guanylyl cyclase activity unlike its counterparts NPR-A and NPR-B but

	instead acts via clearance binding of natriuretic peptides preventing them from binding to other receptors. The receptor has a molecular mass of approximately 60 kDa and is widely expressed in tissues such as vascular endothelium kidney and adipose tissue.
Biological function summary	NPR-C binds multiple natriuretic peptides including ANP BNP and CNP and modulates their effects by facilitating their clearance from circulation. This receptor does not function as part of a larger protein complex unlike other receptor subtypes. It controls blood volume and pressure by influencing the natriuretic diuretic and vasorelaxant actions of its peptide ligands. NPR-C helps maintain fluid balances and prevents overactivation of hormonal pathways linked to cardiovascular conditions.
Pathways	NPR-C serves an important role in the natriuretic peptide signaling pathway primarily through the regulation of peptide availability. It physically interacts with several circulating natriuretic peptides but not through second messenger cascades. NPR-C is integral to maintaining the balance between the ANP receptor pathway and the renin-angiotensin-aldosterone system therefore indirectly modulating the functions of NPR-A and NPR-B which are responsible for cyclic GMP-dependent signaling.
Associated diseases and disorders	NPR-C contributes to the pathophysiology of hypertension and heart failure by overseeing the peptide-hormone balance in the cardiovascular system. Anomalies in NPR-C expression or function can lead to improper regulation of blood pressure and fluid retention. Its interaction with proteins such as angiotensin II receptors can exacerbate the effects of hypertension. Understanding the role of NPR-C in these conditions presents potential therapeutic targets for modulating cardiovascular diseases.

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.

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