Product datasheet

Anti-NOX2/gp91phox antibody [EPR6991] ab129068

Overview

Product name
Anti-NOX2/gp91phox antibody [EPR6991]

Description
Rabbit monoclonal [EPR6991] to NOX2/gp91phox

Host species
Rabbit

Tested applications
Suitable for: WB
Unsuitable for: Flow Cyt, ICC/IF or IHC-P

Species reactivity
Reacts with: Mouse, Rat, Human

Immunogen
Synthetic peptide within Human NOX2/gp91phox aa 150-250. The exact sequence is proprietary.

Positive control
WB: MCF-7, HepG2 and Caco-2 cell lysates, mouse and rat brain and spleen tissue lysates.

General notes

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

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. Stable for 12 months at -20°C.

Dissociation constant ($K_D$)
$K_D = 2.70 \times 10^{-10}$ M
Learn more about K

Storage buffer
- pH: 7.20
- Preservative: 0.01% Sodium azide
- Constituents: PBS, 40% Glycerol, 0.05% BSA

Purity
- Protein A purified

Clonality
- Monoclonal

Clone number
- EPR6991

Isotype
- IgG

Applications

Our Abpromise guarantee covers the use of ab129068 in the following tested applications.

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

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<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/5000. Detects a band of approximately 60 kDa (predicted molecular weight: 65 kDa). For unpurified use at 1/1000 - 1/10000.</td>
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Application notes
- Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

Target

Function
- Critical component of the membrane-bound oxidase of phagocytes that generates superoxide. It is the terminal component of a respiratory chain that transfers single electrons from cytoplasmic NADPH across the plasma membrane to molecular oxygen on the exterior. Also functions as a voltage-gated proton channel that mediates the H(+) currents of resting phagocytes. It participates in the regulation of cellular pH and is blocked by zinc.

Involvement in disease
- Defects in CYBB are a cause of chronic granulomatous disease X-linked (XCGD) [OMIM:306400]. Chronic granulomatous disease is a genetically heterogeneous disorder characterized by the inability of neutrophils and phagocytes to kill microbes that they have ingested. Patients suffer from life-threatening bacterial/fungal infections.

Sequence similarities
- Contains 1 FAD-binding FR-type domain.
- Contains 1 ferric oxidoreductase domain.

Post-translational modifications
- Glycosylated.

Cellular localization
- Membrane.

Images
Western blot - Anti-NOX2/gp91phox antibody [EPR6991] (ab129068) at 1/5000 dilution (purified)

Lane 1: MCF-7 (Human breast adenocarcinoma cell line) cell lysate
Lane 2: HepG2 (Human liver hepatocellular carcinoma cell line) cell lysate
Lane 3: Caco-2 (Human colorectal adenocarcinoma cell line) cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 65 kDa
Observed band size: 60 kDa

why is the actual band size different from the predicted?

Blocking and diluting buffer: 5% NFDM/TBST.

Western blot - Anti-NOX2/gp91phox antibody [EPR6991] (ab129068) at 1/5000 dilution (purified)

Lane 1: Mouse brain tissue lysate
Lane 2: Mouse spleen tissue lysate
Lane 3: Rat brain tissue lysate
Lane 4: Rat spleen tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 65 kDa
Observed band size: 60 kDa why is the actual band size different from the predicted?
Blocking and diluting buffer: 5% NFDM/TBST.

All lanes: Anti-NOX2/gp91phox antibody [EPR6991] (ab129068) at 1/1000 dilution (unpurified)

Lane 1: MCF-7 cell lysate
Lane 2: HepG2 cell lysate
Lane 3: Caco-2 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Predicted band size: 65 kDa
Observed band size: 60 kDa

Why is the actual band size different from the predicted?

Equilibrium disassociation constant ($K_D$)

Learn more about $K_D$.

Click here to learn more about $K_D$.

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