

Product datasheet

# Anti-NADPH oxidase 4 antibody [UOTR1B492] (Alexa Fluor® 647) ab195301

Recombinant RabMAb

1 Image

Overview

<b>Product name</b>	Anti-NADPH oxidase 4 antibody [UOTR1B492] (Alexa Fluor® 647)
<b>Description</b>	Rabbit monoclonal [UOTR1B492] to NADPH oxidase 4 (Alexa Fluor® 647)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Human <b>Predicted to work with:</b> Dog ▲
<b>Immunogen</b>	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human NADPH oxidase 4 aa 500 to the C-terminus. (Peptide available as <a href="#">ab179799</a> )
<b>Positive control</b>	ICC/IF: HeLa cells.
<b>General notes</b>	<p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb® patents</a>.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a>.</p>

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C.
<b>Storage buffer</b>	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, PBS, 1% BSA
<b>Purity</b>	Affinity purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	UOTR1B492
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab195301** in the following tested applications.

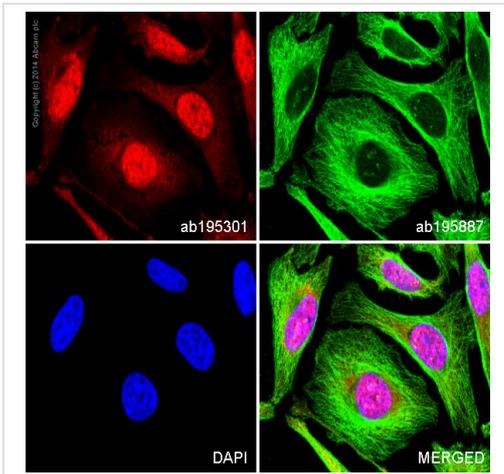
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/35.

## Target

<b>Function</b>	Constitutive NADPH oxidase which generates superoxide intracellularly upon formation of a complex with CYBA/p22phox. Regulates signaling cascades probably through phosphatases inhibition. May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity. May regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipopolysaccharide-mediated activation of NFκB. May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation. Isoform 3 is not functional. Isoform 4 displays an increased activity. Isoform 5 and isoform 6 display reduced activity.
<b>Tissue specificity</b>	Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial cells.
<b>Sequence similarities</b>	Contains 1 FAD-binding FR-type domain. Contains 1 ferric oxidoreductase domain.
<b>Developmental stage</b>	Expressed in fetal kidney and fetal liver.
<b>Post-translational modifications</b>	Isoform 3 and isoform 4 are N-glycosylated. Isoform 4 glycosylation is required for its proper function.
<b>Cellular localization</b>	Endoplasmic reticulum membrane. Cell membrane. Cell junction > focal adhesion. Nucleus. May localize to plasma membrane and focal adhesions. According to PubMed:15927447, may also localize to the nucleus.

## Images



Immunocytochemistry/ Immunofluorescence - Anti-NADPH oxidase 4 antibody [UOTR1B492] (Alexa Fluor® 647) (ab195301)

ab195301 staining NADPH oxidase 4 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab195301 at 1/35 dilution (shown in red) and ab195887, Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 488, shown in green) at 2µg/ml overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

This product also gave a positive signal in 4% formaldehyde (10 min) fixed HeLa cells under the same testing conditions.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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