Datasheet for ABIN129665

anti-NOXO1 antibody (AA 238-252)

2 Images

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Overview

Quantity:	100 µg
Target:	NOXO1
Binding Specificity:	AA 238-252
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NOXO1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein corresponding to amino acids 238-252 of human NOXO1 protein. Immunogentype:Recombinant
Isotype:	IgG
Cross-Reactivity:	Chimpanzee
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	NOXO1
Alternative Name:	NOXO1 (NOXO1 Products)

Target Details

Background:	This antibody is designed, produced, and is suitable for Cancer, Immunology and Nuclear Signaling research. The enzymes NADPH oxidase (NOX) and dual oxidase (DUOX) generate ROS in a regulated manner, producing reactive oxygen in various cells and tissues in response to growth factors, cytokines and calcium signals. The oxidase consists of the catalytic subunit gp91phox (otherwise known as NOX2), together with the regulatory subunits p22phox, p47phox, p40phox, p67phox and the small GTPase RAC. The enzyme activity of gp91phox is regulated by the assembly of these regulatory subunits with gp91phox to form an active complex. In 1999, the first of the NOX homologues of gp91phox was described as NOX1. The enzyme was cloned from a colon epithelial cell complementary DNA library. When expressed in cells, NOX1 generated low amounts of ROS, but high-level ROS production by NOX1 was subsequently achieved by co-expression with novel regulatory subunits (described later). Subsequently, NOX3 and NOX4 were cloned, and the latter was shown to generate high levels of ROS when expressed in cells. NOX organizer 1 (NOXO1) is a homologue of p47phox and has an almost identical domain organization, except that it lacks the auto-inhibitory region. NOX activator 1 (NOXA1) is a homologue of p67phox and similarly shares the same domain organization, except that it lacks one of the two SH3 domains that are present in p67phox. Co-transfection of NOX1, NOXO1 and NOXA1 results in marked ROS generation. Similar to p47phox, NOXO1 binds to p22phox, which is required for NOX1-dependent activity. NOXA1 has a well-conserved activation domain, implying a conserved mechanism for regulating the activity of the target NOX enzyme. Synonyms: NADPH oxidase organizer 1 antibody, NADPH oxidase regulatory protein antibody, Nox organizer 1 antibody, Nox organizing protein 1 antibody, P41NOX antibody, Regulatory protein P41NOX antibody
Gene ID:	124056, 16198473
UniProt:	Q8NFA2

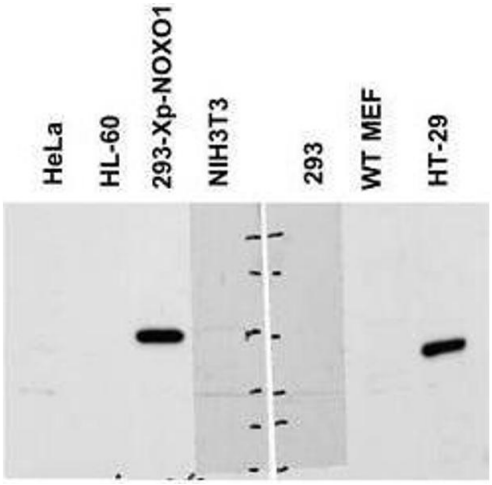
Application Details

Application Notes:	This affinity purified antibody has been tested for use in ELISA, immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 50 kDa in size corresponding to NOXO1 protein by western blotting in the appropriate cell lysate or extract.
Restrictions:	For Research Use only

Handling

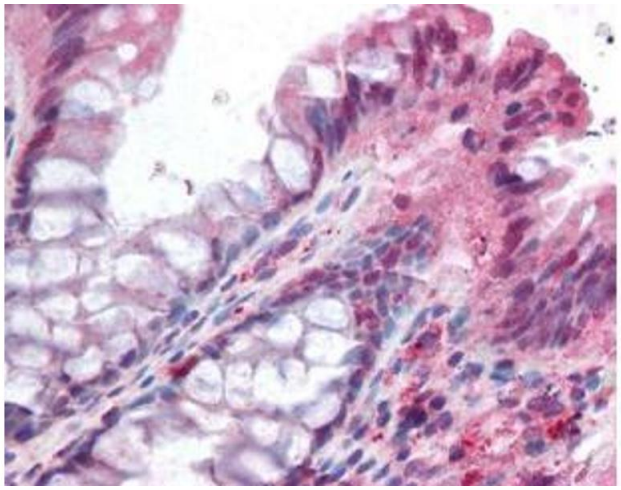
Format:	Liquid
Concentration:	1.17 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Images



Western Blotting

Image 1. Western blot using Affinity Purified anti-NOXO1 antibody shows detection of a band ~50 kDa corresponding to human NOXO1 (arrowhead). Reactivity was observed in transfected human 293 cells and human HT-29 colon carcinoma cells (endogenous). Under these conditions endogenous NOXO1 detection was not observed in HeLa, HL-60, untransfected 293 or WT MEF cells. A 1:1,000 dilution of the primary antibody was used for detection followed by secondary antibody reactivity. Specific band reactivity was competed away when the antibody was pre-incubated with the peptide immunogen (data not shown). Personal Communication, Zhenggang Liu, NIH, CCR, Bethesda, MD.



Immunohistochemistry

Image 2. affinity purified anti-NOXO1 antibody was used at 5 ug/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderate positive staining of the lamina propia in human colon epithelium and macrophages at 40X. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain.

Personal Communi-cation, Tina Roush, LifeSpanBiosciences, Seattle, WA.	