Datasheet for ABIN968523

anti-CYBB antibody (AA 450-556)

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Overview

Quantity:	50 µg
Target:	CYBB
Binding Specificity:	AA 450-556
Reactivity:	Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CYBB antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Mouse gp91[phox] aa. 450-556
Clone:	53-gp91[phox]
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	CYBB
Alternative Name:	gp91 phox (CYBB Products)
Background:	Although dormant in resting granulocytes, macrophages, and B lymphocytes, the neutrophil respiratory burst oxidase (NADPH-oxidase) generates superoxide and secondary oxygen-derived toxic products in response to bacteria or a variety of soluble stimuli. It is an integral membrane cytochrome, b558, which consists of two subunits, gp91[phox] and p21[phox]. Upon stimulation, cytochrome b558 forms a complex with cytosolic proteins, p67[phox], p47[phox], p40[phox], and rac2 and produces superoxide anions in a NADPH-dependent manner. In chronic granulomatous disease (CGD), severe recurrent bacterial and fungal infections result from defective NADPH-oxidase activity. The majority of CGD cases are caused by a defective gp91[phox] gene. gp91[phox], implicated as a docking site for p47[phox], is membrane glycoprotein with multiple N-terminal hydrophobic domains and a hydrophilic C-terminus. The expression of gp91[phox] is restricted to terminally differentiated phagocytes and B lymphocytes. This cell type- and developmental stage-specific expression may be controlled by transcriptional activators, such as PU.1 and YY1, and transcriptional repressors, such as CCAAT displacement protein (CDP). Endogenous mouse gp91phox shows 58 kDa band, instead of 91 kDa observed in human. Both mouse and human deglycosylated gp91 are 54 kDa. This difference may be due to less glycosylation sites in the mouse sequence.
Molecular Weight:	58 kDa

Application Details

Comment:	Related Products: ABIN968555, ABIN967389, ABIN967918, ABIN968245
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

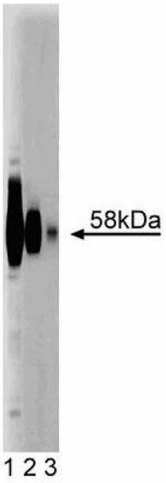
Product cited in:

Jacobsen, Skalnik: "YY1 binds five cis-elements and trans-activates the myeloid cell-restricted gp91(phox) promoter." in: **The Journal of biological chemistry**, Vol. 274, Issue 42, pp. 29984-93 , (1999) (PubMed).

Suzuki, Kumatori, Haagen, Fujii, Sadat, Jun, Tsuji, Roos, Nakamura: "PU.1 as an essential activator for the expression of gp91(phox) gene in human peripheral neutrophils, monocytes, and B lymphocytes." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 95, Issue 11, pp. 6085-90, (1998) (PubMed).

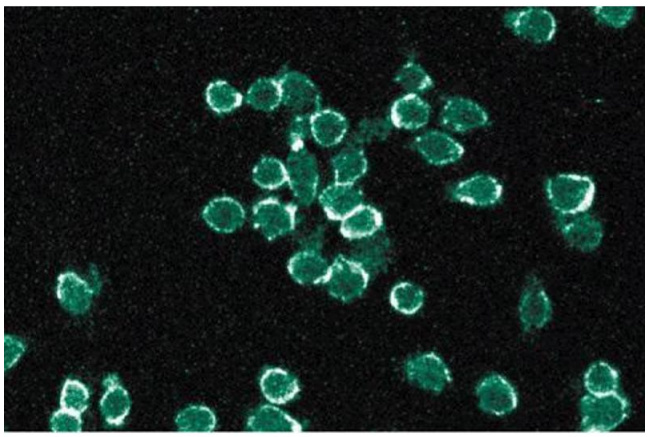
Zhen, Yu, Dinauer: "Probing the role of the carboxyl terminus of the gp91phox subunit of neutrophil flavocytochrome b558 using site-directed mutagenesis." in: **The Journal of biological chemistry**, Vol. 273, Issue 11, pp. 6575-81, (1998) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of gp91[phox] on mouse macrophage lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of gp91[phox] antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of mouse macrophage cells with gp91[phox] antibody.