bs-1091R **[Primary Antibody]**

NADPH oxidase 4 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 50507 **SWISS:** Q9NPH5

Target: NADPH oxidase 4

Immunogen: KLH conjugated synthetic peptide derived from human Nox-4: 81-180/578. < Cytoplasmic >

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Nox4 is a renal gp91-phox homolog highly expressed at the site of erythropoietin production in the proximal convoluted tubule epithelial cells of the renal cortex. Nox4 is also expressed in fetal tissues, placenta, glioblastoma and vascular cells. Like gp91-phox, the enzymatic activity of Nox4 produces superoxide anions. In vascular cells, the addition of angiotensin II increases Nox4 expression, which suggests a role for Nox-4 in vascular oxidative stress response.

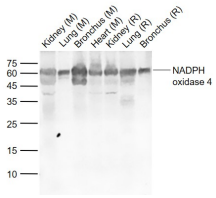
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1μg/Test)

Reactivity: Human, Mouse, Rat (predicted: Cow, Dog, Horse)

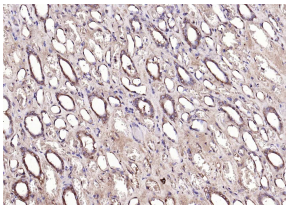
Predicted MW.: 64 kDa

Subcellular Location: Cell membrane ,Cytoplasm

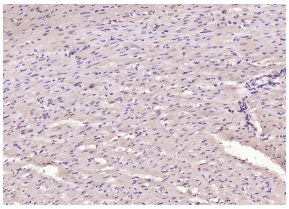
VALIDATION IMAGES



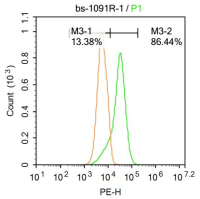
Sample: Lane 1: Kidney (Mouse) Lysate at 40 ug Lane 2: Lung (Mouse) Lysate at 40 ug Lane 3: Bronchus (Mouse) Lysate at 40 ug Lane 4: Heart (Mouse) Lysate at 40 ug Lane 5: Kidney (Rat) Lysate at 40 ug Lane 6: Lung (Rat) Lysate at 40 ug Lane 7: Bronchus (Rat) Lysate at 40 ug Primary: Anti-NADPH oxidase 4 (bs-1091R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 64 kD Observed band size: 62 kD



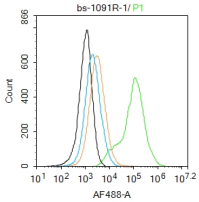
Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NADPH oxidase 4) Polyclonal Antibody, Unconjugated (bs-1091R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NADPH oxidase 4) Polyclonal Antibody, Unconjugated (bs-1091R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Blank control: Raji. Primary Antibody (green line): Rabbit Anti-NADPH oxidase 4 antibody (bs-1091R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-PE Dilution: 1μg /test. Protocol The cells were fixed



Blank control:293T. Primary Antibody (green line): Rabbit Anti-NADPH oxidase 4 antibody (bs-1091R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF488 Dilution: 1μg /test. Protocol The cells were fixed

with 4% PFA (10min at room temperature)and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=7.793]** Wang JN et al. Smad3 Promotes AKI Sensitivity in Diabetic Mice via Interaction With p53 and Induction of NOX4-dependent ROS Production. Redox Biol. 2020 May;32:101479. WB,IF ;mouse. 32143149
- **[IF=7.963]** Meiqiong Wu. et al. Suppression of NADPH oxidase 4 inhibits PM2.5-induced cardiac fibrosis through ROS-P38 MAPK pathway. SCI TOTAL ENVIRON. 2022 Apr;:155558 WB ;Mouse,Rat. 35504386
- **[IF=7.793]** Wang JN et al. Smad3 promotes AKI sensitivity in diabetic mice via interaction with p53 and induction of NOX4-dependent ROS production. Redox Biol. 2020 Feb 26;32:101479. WB ;human. 32143149
- **[IF=6.691]** Jiang, Wenjuan. et al. Macrophage-derived, LRG1-enriched extracellular vesicles exacerbate aristolochic acid nephropathy in a TGFβR1-dependent manner. 2021 Oct 22 WB ;Human. 34677723
- **[IF=7.419]** Zheng-Hao Sun. et al. Interruption of TRPC6-NFATC1 signaling inhibits NADPH oxidase 4 and VSMCs phenotypic switch in intracranial aneurysm. BIOMED PHARMACOTHER. 2023 May;161:114480 IHC ;Human. 37002575