Anti-NOX2 / gp91phox Antibody [SN07-16] ET1611-44

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 65 kDa
Clone number:	SN07-16

Description: Mox1 and the glycoprotein gp91-phox are largely related proteins that are essential components of the NADPH oxidase. The superoxide-generating NADPH oxidase is present in phagocytes, neuroepithelial bodies, vascular smooth muscle cells and endothelial cells. It includes a membrane-bound flavocytochrome containing two subunits, gp91-phox and p22-phox, and the cytosolic proteins p47-phox and p67-phox. During activation of the NADPH oxidase, p47-phox and p67-phox migrate to the plasma membrane, where they associate with the flavocytochrome cytochrome b558 to form the active enzyme complex. The p22- and gp91-phox subunits also function as surface O2 sensors that initiate cellular signaling in response to hypoxic conditions. Mox1 and gp91 contain identical C-terminal sequence identity, yet they have distinct expression patterns. gp91-phox is expressed in eosinophils, neutro-phils, monocytes and B-lymphocytes, whereas Mox1 is predominantly detected in the colon, and low expression is also detected in the uterus and prostate. Mox1 is also upregulated in vascular smooth-muscle cells in response to PDGF stimulation, which collectively indicates that Mox1 may function analogously to gp91-phox, yet regulate the NADPH superoxide production in non-phagocytic cells.

Immunogen: Synthetic peptide within Human NOX2 aa 131-180 / 570.

Positive control: HepG2 cell lysate, MCF7 cell lysate, mouse brain tissue lysate, mouse spleen tissue lysate, rat brain tissue lysate, rat spleen tissue lysate.

Subcellular location: Cell membrane.

Database links: SwissProt: P04839 Human | Q61093 Mouse
Entrez Gene: 66021 Rat

Recommended Dilutions:

WB	1:2,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

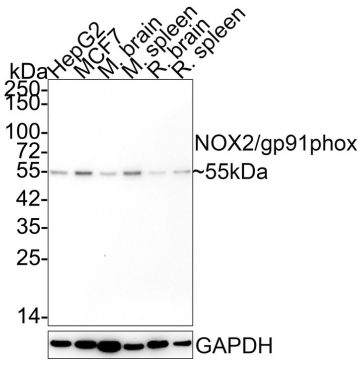

Fig1: Western blot analysis of NOX2 / gp91phox on different lysates with Rabbit anti-NOX2 / gp91phox antibody (ET1611-44) at 1/2,000 dilution.

Lane 1: HepG2 cell lysate (15 µg/Lane)
Lane 2: MCF7 cell lysate (15 µg/Lane)
Lane 3: Mouse brain tissue lysate (20 µg/Lane)
Lane 4: Mouse spleen tissue lysate (20 µg/Lane)
Lane 5: Rat brain tissue lysate (20 µg/Lane)
Lane 6: Rat spleen tissue lysate (20 µg/Lane)

Predicted band size: 65 kDa
Observed band size: 55 kDa

Exposure time: 3 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1611-44) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Heiserman JP et al. TLR4 mutation and HSP60-induced cell death in adult mouse cardiac myocytes. Cell Stress Chaperones 20:527-35 (2015).
2. Graham DB et al. Functional genomics identifies negative regulatory nodes controlling phagocyte oxidative burst. Nat Commun 6:7838 (2015).