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Mouse Nicotinamide Adenine Dinucleotide Phosphate Oxidase 2 (NOX2) ELISA Kit-Sandwich

Cat. No.: EK6F901

Product Type: Animal Immunoassay Kits

Size: 48T;96T

Product Overview

BioVenic Mouse Nicotinamide Adenine Dinucleotide Phosphate Oxidase 2 (NOX2) ELISA Kit-Sandwich is designed for the quantitative determination of Mouse NOX2 in serum, plasma, tissue homogenate, cell culture supernatant, cell lysate, and other biological fluids using a Sandwich ELISA method. For research use only.

Specifications

Assay Type	ELISA-Sandwich
Specificity	The assay kit is specific for Mouse Nicotinamide Adenine Dinucleotide Phosphate Oxidase 2 (NOX2).
Target Species	Mouse
Species Reactivity	Mouse
Detection Range	0.17-10 ng/mL
Reproducibility	Intra-Assay: CV < 10%; Inter-Assay: CV < 12%
Assay Time	Around 90 min
Sample Requirement	Serum, plasma, tissue homogenate, cell culture supernatant, cell lysate, and other biological fluids.

Target Information

NOX2 (NADPH oxidase 2) plays several roles in mouse models, primarily involving oxidative stress, inflammatory response, neurological function, insulin secretion, and vascular function. As a key member of the NADPH oxidase family, NOX2 is predominantly expressed in endothelial cells, macrophages, and neutrophils. It induces oxidative stress by generating superoxide (O_2^-) and peroxides like hydrogen peroxide. NOX2 activation is linked to oxidative stress and vascular dysfunction in cerebral vessels. In cases of ischemia-reperfusion injury, NOX2-deficient mice (Nox2−/−) exhibited reduced cerebral edema and infarct volume, as well as higher survival rates. Additionally, NOX2 expression in adipose tissue is correlated with inflammation and insulin resistance. NOX2-deficient mice experienced reduced inflammation and insulin resistance when subjected to a high-fat diet, highlighting its involvement in metabolic disorders.

Target/Biomarker	Mouse NOX2
Target Synonym	NADPH Oxidase 2;NOX2

Shipping and Storage

This product is shipped with gel ice packs. It is recommended to store at 2-8 °C (Up to 6 months).

Reference

Hook, Jessica S *et al.* "Nox2 Regulates Platelet Activation and NET Formation in the Lung." *Frontiers in immunology* vol. 10 1472. 5 Jul. 2019.