

CoraLite®555-conjugated NOX4 Monoclonal antibody

Catalog Number: **CL555-67681**

Basic Information

Catalog Number:

CL555-67681

Size:

1000 µg/ml

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

AG6176

GenBank Accession Number:

BC040105

GeneID (NCBI):

50507

UNIPROT ID:

Q9NPH5

Full Name:

NADPH oxidase 4

Calculated MW:

67 kDa

Observed MW:

67 kDa

Purification Method:

Protein G purification

CloneNo.:

4E5F1

**Excitation/Emission maxima
wavelengths:**

557 nm / 570 nm

Applications

Tested Applications:**Species Specificity:**

human, rat

Background Information

NOX4 (NADPH oxidase 4) is a phagocyte-type oxidase, similar to that responsible for the production of large amounts of reactive oxygen species (ROS) in neutrophil granulocytes with resultant antimicrobial activity and it has been postulated to function in the kidney as an oxygen sensor that regulates the synthesis of erythropoietin in the renal cortex. Studies have reported molecular masses of Nox4 protein by western blot analysis ranging from 55 to 80 kDa. The truncated NOX4 splice variant D (28 kDa) lacks the majority of the transmembrane domain and has been shown to produce higher levels of ROS and DNA damage compared to its prototype. NOX4D has previously been shown to localise to the nucleus and nucleolus in various cell types and is implicated in the generation of reactive oxygen species (ROS) and DNA damage (PMID: 11728818, PMID: 29285262, PMID: 14670934). Nox4 in cardiac myocytes is primarily expressed in mitochondria, and upregulation of Nox4 induced by hypertrophic stimuli elicits mitochondrial dysfunction and cardiac failure. In breast or ovarian tumor cells, mitochondrial Nox4 contributes to oncogenesis. In vascular endothelial cells, however, Nox4 is expressed in the endoplasmic reticulum (ER) and plays a specific role in redox-mediated ER signaling (PMID: 24259511).

Storage

Storage:

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

Storage Buffer:

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

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