

For Research Use Only

# CoraLite®555-conjugated NOX4 Monoclonal antibody



Catalog Number:CL555-67681

## Basic Information

<b>Catalog Number:</b> CL555-67681	<b>GenBank Accession Number:</b> BC040105	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 50507	<b>CloneNo.:</b> 4E5F1
<b>Source:</b> Mouse	<b>Full Name:</b> NADPH oxidase 4	<b>Excitation/Emission maxima wavelengths:</b> 557 nm / 570 nm
<b>Isotype:</b> IgG1	<b>Calculated MW:</b> 67 kDa	
<b>Immunogen Catalog Number:</b> AG6176	<b>Observed MW:</b> 67 kDa	

## Applications

**Tested Applications:**  
FC (Intra)

**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.

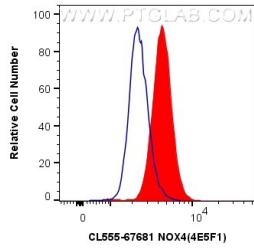
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

## Selected Validation Data



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug CoraLite®555 Anti-Human NOX4 (CL555-67681, Clone:4E5F1) (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).