

For Research Use Only

NOX4 Monoclonal antibody, PBS Only

Catalog Number: 67681-1-PBS



Basic Information

Catalog Number: 67681-1-PBS	GenBank Accession Number: BC040105	Purification Method: Protein A purification
Size: 100ug , Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 50507	CloneNo.: 4E5F1
Source: Mouse	UNIPROT ID: Q9NPH5	
Isotype: IgG1	Full Name: NADPH oxidase 4	
Immunogen Catalog Number: AG6176	Calculated MW: 67 kDa	
	Observed MW: 58-67 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, Indirect ELISA

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

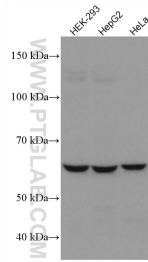
Storage:
Store at -80°C.

Storage Buffer:
PBS Only

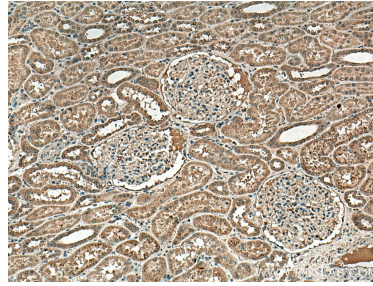
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com
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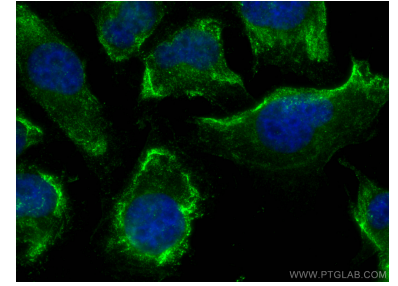
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 67681-1-Ig (NOX4 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67681-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 67681-1-Ig (NOX4 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67681-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HUVEC cells using NOX4 antibody (67681-1-Ig, Clone: 4E5F1) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 67681-1-PBS in a different storage buffer formulation.