

DESCRIPTION

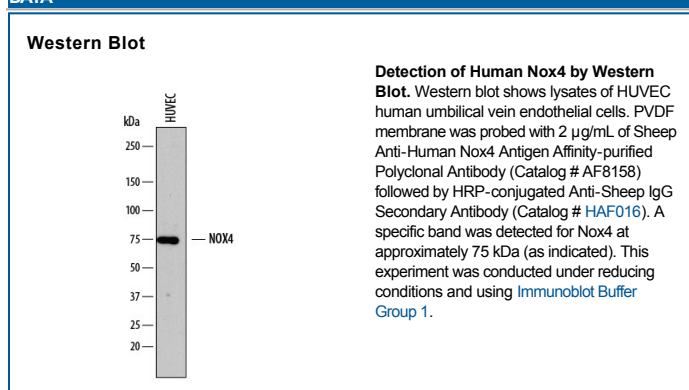
Species Reactivity	Human
Specificity	Detects human Nox4 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Nox4 Lys450-Ser578 Accession # Q9NPH5
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

NADPH Oxidase 4/NOX4, also known as Renal NADPH Oxidase/RENOX and Kidney Oxidase 1/KOX1, is a 66 to 75 kDa member of the NOX family of NADPH oxidases. NOX family members are a major source of reactive oxygen species (ROS), including hydrogen peroxide and superoxide, and are critical mediators of redox signaling. NOX4 is strongly expressed in the kidney, especially in the proximal convoluted tubule cells of the renal cortex, and may function as an oxygen sensor that regulates the synthesis of erythropoietin. Expression is also high in endothelial cells, and because aortas from deficient mice exhibit increased inflammation, hypertrophy and endothelial dysfunction, NOX4 may function to protect the vasculature during ischemic or inflammatory stress. Human NOX4 is 578 amino acids (aa) in length, with several additional smaller isoforms identified. Over aa 450-578, human NOX4 has 92% sequence identity with mouse NOX4, and 91% identity with rat NOX4.