

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human PHOX2B in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PHOX2B Met1-Glu94 Accession # Q99453
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 as a 0.2 µm filtered solution in PBS.

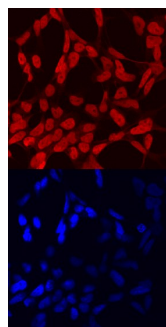
APPLICATIONS

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
Immunocytochemistry	5-15 µg/mL	See Below

DATA

Immunocytochemistry



PHOX2B in IMR-32 Human Cell Line. PHOX2B was detected in immersion fixed IMR-32 human neuroblastoma cell line using Goat Anti-Human PHOX2B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4940) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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

PHOX2B (Paired mesoderm homeobox protein 2B; also NBPhox) is a 33-35 kDa member of the paired homeobox family of transcription factors. It is not actually a mesoderm-associated protein, but is instead apparently restricted to neuronal precursors and mature neurons. It is found in glutamatergic neurons of the NTS and neurons that demarcate the respiratory chemoreception pathway. In addition, PHOX2B is essential to the development of noradrenergic adrenal chromaffin and sympathetic motor neurons. Human PHOX2B is 314 amino acids (aa) in length. It contains one DNA binding homeobox domain (aa 98-157), and two poly-Ala sequences, one between aa 159-167, and another between aa 241-260. Alanine extensions involving anywhere from 5 to 11 Ala residues may exist. These change the nature of the PHOX2B molecule. While wild-type PHOX2B is nuclear, Ala extensions promote its retention in the cytoplasm with loss of activity. PHOX2B may potentially form oligomers with itself, or its paralogue, PHOX2A. Human and mouse PHOX2B are identical in aa sequence.