

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HOXB1 in direct ELISAs. In direct ELISAs, less than 2% cross-reactivity with recombinant human (rh) HOXA1, rhHOXB4, and rhHOXA9 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human HOXB1 Met1-Thr192 Accession # P14653
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.

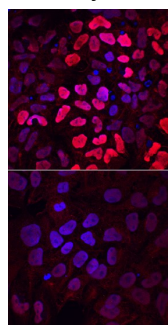
APPLICATIONS

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
Immunocytochemistry	5-15 µg/mL	See Below

DATA

Immunocytochemistry



HOXB1 in Ntera-2 Human Cell Line. HOXB1 was detected in immersion fixed Ntera-2 human testicular embryonic carcinoma cells, treated with (upper panel) and without (lower panel) retinoic acid, using Sheep Anti-Human HOXB1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6318) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 567-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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

HOXB1 (Homeobox protein B1; also HOX-2I) is a 32 kDa (predicted) member of the Antp homeobox family, labial subfamily of transcription factors. It is expressed in rhombomere-4 (r-4) of the hindbrain, where it drives the development of r-4 derived structures. Among these are the motor neurons of the facial nerve, and neural crest cells that form Schwann cells plus cartilage and bone of the neck and ear. Human HOXB1 is 301 amino acids (aa) in length. It contains an Antp-type hexapeptide (aa 179-184) that mediates heterodimerization, and a DNA-binding homeobox domain (aa 203-262). There is one potential splice variant that shows a 40 aa substitution for aa 193-301. Over aa 1-192, human HOXB1 shares 82% aa identity with mouse HOXB1.