

# HoxB5 (Q-18): sc-82895

## BACKGROUND

The Hox proteins are a family of transcription factors that play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. Hox proteins are involved in controlling axial patterning, leukemias and hereditary malformations. HoxB5 (homeobox protein Hox-B5), also known as HOX2, HU-1, HOX2A, Hox2.1 or HHO.C10, is a member of the Antp homeobox (Hox) family. It is a 269 amino acid long nuclear protein expressed in the central nervous system. HoxB5 contains one homeobox DNA-binding domain and plays a role in the regulation of lung and gut development, providing cells with positional identities on the anterior-posterior body axis.

## CHROMOSOMAL LOCATION

Genetic locus: HOXB5 (human) mapping to 17q21.3; Hoxb5 (mouse) mapping to 11 D.

## SOURCE

HoxB5 (Q-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxB5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82895 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-82895 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

HoxB5 (Q-18) is recommended for detection of HoxB5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Hox family members.

Suitable for use as control antibody for HoxB5 siRNA (h): sc-75279, HoxB5 siRNA (m): sc-75280, HoxB5 shRNA Plasmid (h): sc-75279-SH, HoxB5 shRNA Plasmid (m): sc-75280-SH, HoxB5 shRNA (h) Lentiviral Particles: sc-75279-V and HoxB5 shRNA (m) Lentiviral Particles: sc-75280-V.

HoxB5 (Q-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

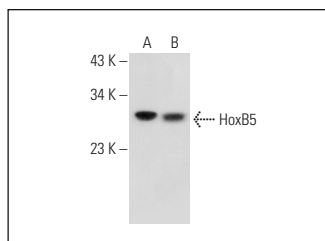
Molecular Weight of HoxB5: 29 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HoxB5 (Q-18): sc-82895. Western blot analysis of HoxB5 expression in Hep G2 (A) and Jurkat (B) whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **HoxB5 (133C3a): sc-81099**, our highly recommended monoclonal alternative to HoxB5 (Q-18).