

# HESL (A-14): sc-161704

## 250BACKGROUND

The *Drosophila* hairy and Enhancer of split genes encode basic helix-loop-helix (bHLH) transcriptional repressors that function in the Notch signaling pathway and control segmentation and neural development during embryogenesis. The Notch signaling pathway is thought to maintain stem cells through transcriptional activation of HES/HEY family members to repress tissue-specific transcription factors. HESL (HES-like), also known as Mgn or HELT (HES/HEY-like transcription factor), is a 327 amino acid nuclear protein belonging to the HEY family. Containing a basic helix-loop-helix (bHLH) domain and an Orange domain, HESL self-associates and interacts with HES5 and HRT2. HESL is considered a transcriptional repressor that binds to the canonical E box sequence 5'-CACGCG-3'. HESL exists as two isoforms produced by alternative splicing events.

## REFERENCES

1. Sasai, Y., et al. 1992. Two mammalian helix-loop-helix factors structurally related to *Drosophila* hairy and Enhancer of split. *Genes Dev.* 6: 2620-2634.
2. Akazawa, C., et al. 1992. Molecular characterization of a rat negative regulator with a basic helix-loop-helix structure predominantly expressed in the developing nervous system. *J. Biol. Chem.* 267: 21879-21885.
3. Takebayashi, K., et al. 1994. Structure, chromosomal locus and promoter analysis of the gene encoding the mouse helix-loop-helix factor HES1. Negative autoregulation through the multiple N box elements. *J. Biol. Chem.* 269: 5150-5156.
4. Iso, T., et al. 2003. HES and HERP families: multiple effectors of the Notch signaling pathway. *J. Cell. Physiol.* 194: 237-255.
5. Katoh, M., et al. 2004. Identification and characterization of human HESL, rat HESL and rainbow trout HESL genes in silico. *Int. J. Mol. Med.* 14: 747-751.

## CHROMOSOMAL LOCATION

Genetic locus: HELT (human) mapping to 4q35.1; Helt (mouse) mapping to 8 B1.1.

## SOURCE

HESL (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HESL 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.

Blocking peptide available for competition studies, sc-161704 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-161704 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

HESL (A-14) is recommended for detection of HESL 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).

HESL (A-14) is also recommended for detection of HESL in additional species, including equine.

Suitable for use as control antibody for HESL siRNA (h): sc-88997, HESL siRNA (m): sc-145948, HESL shRNA Plasmid (h): sc-88997-SH, HESL shRNA Plasmid (m): sc-145948-SH, HESL shRNA (h) Lentiviral Particles: sc-88997-V and HESL shRNA (m) Lentiviral Particles: sc-145948-V.

HESL (A-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

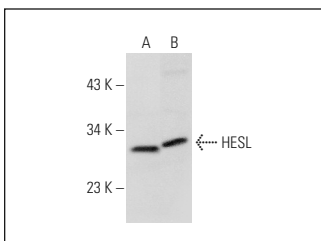
Molecular Weight of HESL isoforms: 36/27 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HeLa nuclear extract: sc-2120.

## 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



HESL (A-14): sc-161704. Western blot analysis of HESL expression in HeLa whole cell lysate (A) and HeLa nuclear extract (B).

## 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.