

# HRT1 (H-120): sc-28746

## BACKGROUND

The LIN-12/Notch family of transmembrane receptors plays a central role in development by regulating cell fate and establishing boundaries of gene expression. Notch signaling activates the Hairy/Enhancer of split [H/E(spl)] genes, which encode basic helix-loop-helix (bHLH) transcriptional repressors that are critical for directing embryonic patterning and development. The Hairy-related transcription factors (HRTs) comprise a subclass of bHLH proteins that exhibit structural similarity with the H/E(spl) proteins and include HRT1, HRT2 and HRT3. The HRT family (also designated Hesr, Hey, CHF and Gridlock) contain a bHLH domain, an Orange domain and a novel YRPW domain, which is absent in HRT3. The Hairy-related genes are downstream targets for Notch signaling. HRT1 is expressed in the somitic mesoderm, central nervous system, kidney, heart, nasal epithelium and limb buds in murine embryos as well as in adult tissues. It has altered expression in many breast, lung and kidney tumors. Like HRT1, HRT2 and HRT3 are also expressed in developing somites, heart and nervous system.

## CHROMOSOMAL LOCATION

Genetic locus: HEY1 (human) mapping to 8q21.13; Hey1 (mouse) mapping to 3 A1.

## SOURCE

HRT1 (H-120) is a rabbit polyclonal antibody raised against amino acids 201-290 mapping near the C-terminus of HRT1 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-28746 X, 200 µg/0.1 ml.

## APPLICATIONS

HRT1 (H-120) is recommended for detection of HRT1 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). HRT1 (H-120) is also recommended for detection of HRT1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HRT1 siRNA (h): sc-37914, HRT1 siRNA (m): sc-37915, HRT1 shRNA Plasmid (h): sc-37914-SH, HRT1 shRNA Plasmid (m): sc-37915-SH, HRT1 shRNA (h) Lentiviral Particles: sc-37914-V and HRT1 shRNA (m) Lentiviral Particles: sc-37915-V.

HRT1 (H-120) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

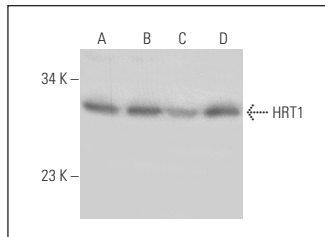
Molecular Weight of HRT1: 33 kDa.

Positive Controls: ACHN whole cell lysate: sc-364365, DU 145 cell lysate: sc-2268 or NCI-H1299 whole cell lysate: sc-364234.

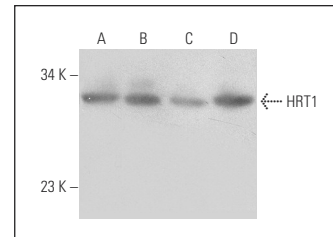
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HRT1 (H-120): sc-28746. Western blot analysis of HRT1 expression in ACHN (A), DU 145 (B), A549 (C) and NCI-H1299 (D) whole cell lysates.



HRT1 (H-120): sc-28746. Western blot analysis of HRT1 expression in HCT-116 (A), HeLa (B) and C2C12 (C) whole cell lysates and rat testis tissue extract (D).

## SELECT PRODUCT CITATIONS

- Magee, T.R., et al. 2011. Maternal undernourished fetal kidneys exhibit differential regulation of nephrogenic genes including downregulation of the Notch signaling pathway. *Reprod. Sci.* 18: 563-576.
- Subhan, F., et al. 2013. Epidermal growth factor-like domain 8 inhibits the survival and proliferation of mouse thymocytes. *Int. J. Mol. Med.* 32: 952-958.

## STORAGE

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

## 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 **HRT1 (NB-A7): sc-134362**, our highly recommended monoclonal alternative to HRT1 (H-120).