

UTX/Y (H-300): sc-292326

BACKGROUND

The Notch signaling pathway controls cellular interactions important for the specification of a variety of fates in both vertebrates and invertebrates. Key players in the Notch pathway are the TLE genes (for transducin-like enhancer of split, also designated ESG for enhancer of split groucho), which are human homologs of the *Drosophila* groucho gene. UTX (ubiquitously transcribed tetratricopeptide repeat, X chromosome) is a 1,401 amino acid nuclear protein that interacts with TLE1 (transducin-like enhancer of split 1) and, together, these proteins are thought to function as transcriptional repressors for a variety of targets. Expressed from a gene located on the inactive X chromosome, UTX functions as a histone demethylase that is involved in modulating the histone code (via demethylation of lysine residues on Histone H3) and in regulating Hox (homeobox) gene expression. UTX contains one JMJC domain and eight TPR repeats.

REFERENCES

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- Lan, F., et al. 2007. A Histone H3 lysine 27 demethylase regulates animal posterior development. *Nature* 449: 689-694.
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- Smith, E.R., et al. 2008. *Drosophila* UTX is a Histone H3 Lys27 demethylase that colocalizes with the elongating form of RNA polymerase II. *Mol. Cell. Biol.* 28: 1041-1046.

CHROMOSOMAL LOCATION

Genetic locus: KDM6A (human) mapping to Xp11.3, UTY (human) mapping to Yq11.221; Kdm6a (mouse) mapping to X A1.2, Uty (mouse) mapping to Y A1.

SOURCE

UTX/Y (H-300) is a rabbit polyclonal antibody raised against amino acids 1102-1401 mapping at the C-terminus of UTX of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

UTX/Y (H-300) is recommended for detection of UTX and UTY 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).

UTX/Y (H-300) is also recommended for detection of UTX and UTY in additional species, including equine, canine, bovine, porcine and avian.

UTX/Y (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of UTX/Y: 154 kDa.

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.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **UTX (E-8): sc-514859**, our highly recommended monoclonal alternative to UTX/Y (H-300).