

# TAL1 (H-60): sc-22809

## BACKGROUND

Activation of TAL1 characterizes up to 60% of cases of human T cell acute lymphoblastic leukemia, making it the most frequent gain-of-function mutation observed in this disorder. TAL1 (also designated SCL) is a serine phosphoprotein and basic helix-loop-helix transcription factor known to regulate embryonic hematopoiesis. This transcription factor binds as a heterodimer with E2A and HEB/HTF4 to a nucleotide sequence motif termed the E-box. In addition, leukemogenesis is accelerated dramatically by transgenic coexpression of TAL1 and the catalytic subunit of casein kinase II $\alpha$ , a serine/threonine protein kinase known to modulate the activity of other bHLH transcription factors.

## CHROMOSOMAL LOCATION

Genetic locus: TAL1 (human) mapping to 1p33; Tal1 (mouse) mapping to 4 D1.

## SOURCE

TAL1 (H-60) is a rabbit polyclonal antibody raised against amino acids 272-331 mapping at the C-terminus of TAL1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g 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-22809 X, 200  $\mu$ g/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

TAL1 (H-60) is recommended for detection of TAL1 pp42, pp39 and pp22 isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

TAL1 (H-60) is also recommended for detection of TAL1 pp42, pp39 and pp22 isoforms in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TAL1 siRNA (h): sc-36608, TAL1 siRNA (m): sc-36609, TAL1 shRNA Plasmid (h): sc-36608-SH, TAL1 shRNA Plasmid (m): sc-36609-SH, TAL1 shRNA (h) Lentiviral Particles: sc-36608-V and TAL1 shRNA (m) Lentiviral Particles: sc-36609-V.

TAL1 (H-60) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of full-length TAL1: 42 kDa.

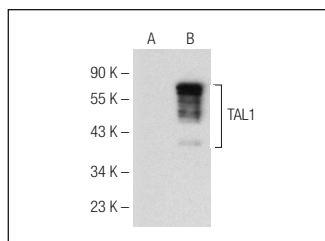
Molecular Weight of truncated TAL1: 24 kDa.

Positive Controls: CCRF-CEM nuclear extract: sc-2146, Jurkat nuclear extract: sc-2132 or TAL1 (h): 293T Lysate: sc-172270.

## 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



TAL1 (H-60): sc-22809. Western blot analysis of TAL1 expression in non-transfected: sc-117752 (A) and human TAL1 transfected: sc-172270 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Dey, S., et al. 2010. The TAL1/SCL transcription factor regulates cell cycle progression and proliferation in differentiating murine bone marrow monocyte precursors. *Mol. Cell. Biol.* 30: 2181-2192.
- Tasseva, G., et al. 2011. N-Myc and SP regulate phosphatidyserine synthase-1 expression in brain and glial cells. *J. Biol. Chem.* 286: 1061-1073.

## 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.



Try **TAL1 (C-4): sc-393287** or **TAL1 (B-8): sc-393288**, our highly recommended monoclonal alternatives to TAL1 (H-60).