

# TSEN54 (H-132): sc-292014

## BACKGROUND

The tRNA-splicing endonuclease complex is responsible for identifying and cleaving pre-tRNA at both 5' and 3' splice sites, thereby releasing introns and free tRNA molecules with 2',3' cyclic phosphates and 5'-OH termini. In addition to its role in pre-tRNA splicing, the heterotetrameric endonuclease complex participates in mRNA processing and, via its association with pre-mRNA processing factors, is thought to link pre-tRNA and pre-mRNA splicing events. TSEN54 (tRNA splicing endonuclease 54 homolog), also known as HsTSEN54 (SEN54 homolog) or tRNA-intron endonuclease Sen54, is a 526 amino acid protein belonging to the SEN54 family. Localizing to nucleus, TSEN54 is a member of a complex which identifies and cleaves the splice sites in pre-tRNA, and may also be involved in mRNA processing. Defects in TSEN54 may result in pontocerebellar hypoplasia (PCH) type 4 and 2A, characterized by structural abnormalities to the cerebellum, inferior olive, and ventral pons. TSEN54 exists as two alternatively spliced isoforms.

## CHROMOSOMAL LOCATION

Genetic locus: TSEN54 (human) mapping to 17q25.1; Tsen54 (mouse) mapping to 11 E2.

## SOURCE

TSEN54 (H-132) is a rabbit polyclonal antibody raised against amino acids 11-142 mapping near the N-terminus of TSEN54 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-292014 X, 200 µg/0.1 ml.

## APPLICATIONS

TSEN54 (H-132) is recommended for detection of TSEN54 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).

TSEN54 (H-132) is also recommended for detection of TSEN54 in additional species, including canine and bovine.

Suitable for use as control antibody for TSEN54 siRNA (h): sc-93849, TSEN54 siRNA (m): sc-154715, TSEN54 shRNA Plasmid (h): sc-93849-SH, TSEN54 shRNA Plasmid (m): sc-154715-SH, TSEN54 shRNA (h) Lentiviral Particles: sc-93849-V and TSEN54 shRNA (m) Lentiviral Particles: sc-154715-V.

TSEN54 (H-132) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

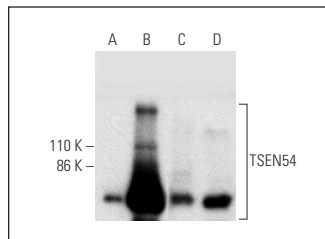
Molecular Weight of TSEN54 isoforms 1/2: 59/20 kDa.

Positive Controls: TSEN54 (h): 293T Lysate: sc-116179, ARPE-19 whole cell lysate: sc-364357 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 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



TSEN54 (H-132): sc-292014. Western blot analysis of TSEN54 expression in non-transfected 293T: sc-117752 (A), human TSEN54 transfected 293T: sc-116179 (B), ARPE-19 (C) and Jurkat (D) whole cell lysates.

## 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.



Try **TSEN54 (C-1): sc-374488** or **TSEN54 (A-9): sc-398327**, our highly recommended monoclonal alternatives to TSEN54 (H-132).