

# TCFL5 (V-23): sc-134068

## BACKGROUND

Transcription factors containing basic helix-loop-helix (bHLH) motifs are responsible for the regulation of neurogenesis, cardiogenesis, myogenesis, differentiation and cell proliferation. TCFL5 [transcription factor-like 5 (basic helix-loop-helix)], also known as cha transcription factor, HPV-16 E2-binding protein 1, CHA, Figlb, E2BP-1 or MGC46135, is a 500 amino acid protein belonging to the basic helix-loop-helix (bHLH) family. TCFL5 localizes to the nucleus and may function as a transcription factor during early spermatogenesis. TCFL5 is known to form a complex with upstream stimulatory factor (USF)-1, thereby negatively regulating USF-dependent transcription. Six isoforms of TCFL5 exist due to alternative splicing; isoform 2 is pancreas specific and isoform 3 is testis specific showing expression in primary spermatocytes at the pachytene stage. Antibodies against TCFL5 have been identified in patients with Chagas' disease, which is caused by *Trypanosoma cruzi* infection.

## REFERENCES

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- Maruyama, O., et al. 1998. Cloning of TCFL5 encoding a novel human basic helix-loop-helix motif protein that is specifically expressed in primary spermatocytes at the pachytene stage. *Cytogenet. Cell Genet.* 82: 41-45.
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- Gironès, N., et al. 2001. Dominant T- and B-cell epitopes in an autoantigen linked to Chagas' disease. *J. Clin. Invest.* 107: 985-993.
- Rodríguez, C.I., et al. 2003. Cha, a basic helix-loop-helix transcription factor involved in the regulation of upstream stimulatory factor activity. *J. Biol. Chem.* 278: 43135-43145.
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## CHROMOSOMAL LOCATION

Genetic locus: TCFL5 (human) mapping to 20q13.33.

## SOURCE

TCFL5 (V-23) is an affinity purified rabbit polyclonal antibody raised against synthetic TCFL5 peptide of human origin.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

TCFL5 (V-23) is recommended for detection of TCFL5 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TCFL5 siRNA (h): sc-76637, TCFL5 shRNA Plasmid (h): sc-76637-SH and TCFL5 shRNA (h) Lentiviral Particles: sc-76637-V.

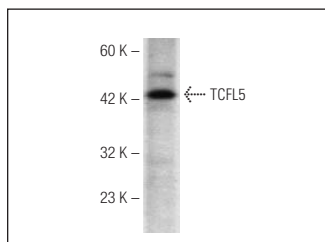
Molecular Weight of TCFL5: 48 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



TCFL5 (V-23): sc-134068. Western blot analysis of TCFL5 expression in Hep G2 whole cell lysate.

## RESEARCH USE

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