

ITF-2 (G-22): sc-133697

BACKGROUND

Immunoglobulin transcription factor 2 (ITF-2), also designated transcription factor and SL3-3 enhancer factor 2 (SEF-2) is a basic helix-turn-helix transcription factor. ITF-2 binds to the immunoglobulin enhancer Mu-E5/KE5-motif and to the Ephrussi-box (E-box) element present in SSTR2-INR and serves as an activator of transcription in muscle-specific genes. ITF-2 preferentially binds to either 5'-ACANNTGT-3' or 5'-CCANNTGG-3'. ITF-2 belongs to the class of simple bHLH transcription factors identified as ubiquitous E-box binding factors, which also includes the E2A gene products (E12 and E47) and HEB. The protein is expressed in adult heart, brain, placenta, skeletal muscle and embryonic brain. ITF-2 forms homo- or hetero-oligomers with myogenin and MyoD; alternatively spliced isoforms of ITF-2 function to activate or repress their transcription.

REFERENCES

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- Corneliusson, B., et al. 1991. Helix-loop-helix transcriptional activators bind to a sequence in glucocorticoid response elements of retrovirus enhancers. *J. Virol.* 65: 6084-6093.
- Skerjanc, I.S., et al. 1996. A splice variant of the ITF-2 transcript encodes a transcription factor that inhibits Myo D activity. *J. Biol. Chem.* 271: 3555-3561.
- Chen, B. and Lim, R.W. 1997. Physical and functional interactions between the transcriptional inhibitors Id3 and ITF-2 β . Evidence toward a novel mechanism regulating muscle-specific gene expression. *J. Biol. Chem.* 272: 2459-2463.
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CHROMOSOMAL LOCATION

Genetic locus: TCF4 (human) mapping to 18q21.2; Tcf4 (mouse) mapping to 18 E2.

SOURCE

ITF-2 (G-22) is an affinity purified rabbit polyclonal antibody raised against synthetic ITF-2 peptide of human origin.

PRODUCT

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

APPLICATIONS

ITF-2 (G-22) is recommended for detection of ITF-2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ITF-2 siRNA (h): sc-61657, ITF-2 siRNA (m): sc-61658, ITF-2 shRNA Plasmid (h): sc-61657-SH, ITF-2 shRNA Plasmid (m): sc-61658-SH, ITF-2 shRNA (h) Lentiviral Particles: sc-61657-V and ITF-2 shRNA (m) Lentiviral Particles: sc-61658-V.

Molecular Weight (predicted) of ITF-2: 71 kDa.

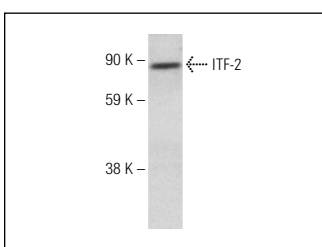
Molecular Weight (observed) of ITF-2: 85 kDa.

Positive Controls: A549 cell lysate: sc-2413 or human placenta extract: sc-363772.

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).

DATA



ITF-2 (G-22): sc-133697. Western blot analysis of ITF-2 expression in human placenta tissue extract.

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 or our catalog for detailed protocols and support products.