

ITF-2 (K-15): sc-48948

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 SSTR2-1NR 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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- French, B.A., et al. 1991. Heterodimers of myogenic helix-loop-helix regulatory factors and E12 bind a complex element governing myogenic induction of the avian cardiac α -Actin promoter. *Mol. Cell. Biol.* 11: 2439-2450.
- 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 MyoD activity. *J. Biol. Chem.* 271: 3555-3561.
- Chen, B., et al. 1997. Physical and functional interactions between the transcriptional inhibitors Id3 and ITF-2b. Evidence toward a novel mechanism regulating muscle-specific gene expression. *J. Biol. Chem.* 272: 2459-2463.

CHROMOSOMAL LOCATION

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

SOURCE

ITF-2 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ITF-2 of human origin.

PRODUCT

Each vial contains 200 μ 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-48948 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-48948 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ITF-2 (K-15) is recommended for detection of ITF-2 isoforms SEF2-1A and SEF2-1D of mouse, rat 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)], 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).

ITF-2 (K-15) is also recommended for detection of ITF-2 isoforms SEF2-1A and SEF2-1D in additional species, including equine, canine, bovine and porcine.

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.

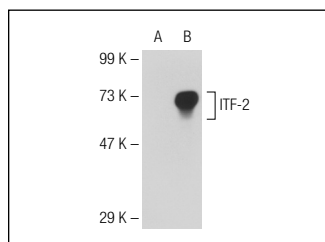
ITF-2 (K-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

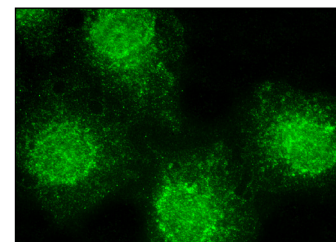
Molecular Weight (observed) of ITF-2: 85 kDa.

Positive Controls: ITF-2 (m): 293T Lysate: sc-121127, A549 cell lysate: sc-2413 or human placenta extract: sc-363772.

DATA



ITF-2 (K-15): sc-48948. Western blot analysis of ITF-2 expression in non-transfected: sc-117752 (A) and mouse ITF-2 transfected: sc-121127 (B) 293T whole cell lysates.



ITF-2 (K-15): sc-48948. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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.


 MONOS
Satisfaction
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Try **ITF-2 (C-8): sc-393407** or **ITF-2 (C-1): sc-393255**, our highly recommended monoclonal alternatives to ITF-2 (K-15).