## BACKGROUND

The ubiquitously expressed cellular upstream stimulatory factor (USF) consists of USF-1 and USF-2 polypeptides which independently exhibit site-specific DNA binding and are members of the c-Myc-related family of regulatory factors containing helix-loop-helix domains. USF also contains a leucine repeat that is required for efficient DNA binding. USF was originally identified as an upstream stimulatory factor that binds the core sequence CACGTG in the adenovirus late promoter. These findings, together with the demonstration of cooperative interaction between USF and the initiator-binding protein, TFII-I, raises the possibility of a more general involvement of USF in transcriptional regulation. While expression of both USF-1 and USF-2 species is ubiquitous, different ratios of USF homo- and heterodimers are found in different cell types.

## CHROMOSOMAL LOCATION

Genetic locus: USF1 (human) mapping to 1q23.3; Usf1 (mouse) mapping to 1 H 3 .

## SOURCE

USF-1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C -terminus of USF-1 of human origin.

## PRODUCT

Each vial contains $200 \mu \mathrm{glgG}$ in 1.0 ml of PBS with $<0.1 \%$ sodium azide and $0.1 \%$ gelatin.

Blocking peptide available for competition studies, sc-30898 P, (100 $\mu \mathrm{g}$ peptide in 0.5 ml PBS containing $<0.1 \%$ sodium azide and $0.2 \%$ BSA).

## STORAGE

Store at $4^{\circ} \mathrm{C}$, ${ }^{* *}$ 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.

## APPLICATIONS

USF-1 (C-15) is recommended for detection of USF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [ $1-2 \mu \mathrm{~g}$ per $100-500 \mu \mathrm{~g}$ 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). USF-1 ( $\mathrm{C}-15$ ) is also recommended for detection of USF-1 in additional species, including equine, canine, bovine, porcine and avian.
Suitable for use as control antibody for USF-1 siRNA (h): sc-36783, USF-1 siRNA (m): sc-36784, USF-1 shRNA Plasmid (h): sc-36783-SH, USF-1 shRNA Plasmid (m): sc-36784-SH, USF-1 shRNA (h) Lentiviral Particles: sc-36783-V and USF-1 shRNA (m) Lentiviral Particles: sc-36784-V.
Molecular Weight of USF-1: 43 kDa .
Positive Controls: USF-1 (h2): 293T Lysate: sc-158055, NIH/3T3 nuclear extract: sc-2138 or USF-1 (h): 293T Lysate: sc-158056.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz ${ }^{\text {™ }}$ Mounting Medium: sc-24941.


USF-1 (C-15): sc-30898. Western blot analysis of USF-1 expression in non-transfected: sc-117752 (A) and human USF-1 transfected: sc-158055 (B) 293T whole cell lysates.

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Try USF-1 (G-2): sc-390027 or USF-1 (B-9):
sc-390033, our highly recommended monoclonal alternatives to USF-1 (C-15).

