SANTA CRUZ BIOTECHNOLOGY, INC.

p-UBF (Ser 637)-R: sc-21639-R

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The Power to Question

BACKGROUND

Upstream binding factor (UBF) is a nucleolar transcription factor that is a member of the HMG-box DNA-binding protein family and is required for the expression of 18S, 5.8S and 28S ribosomal RNA. UBF activity is regulated in a cell cycle-dependent manner by phosphorylation at Serine residues near the C terminus. Activation of UBF requires phosphorylation at multiple residues, including Ser 388, Ser 484 and Ser 637. Phosphorylation of UBF at Serine 484 by G_1-specific cyclin-dependent kinase (cdk)/cyclin complexes is necessary to activate rDNA transcription. After G_1, UBF is phosphorylated by Cdk2/cyclin E and Cdk2/cyclin A at Serine 388. UBF phosphorylation induces transactivation of RNA polymerase I. Specifically, Serine 388 phosphorylation is required for the interaction between RNA polymerase I and UBF. The human UBF gene maps to the BRCA1 region of chromosome 17q21.31 and encodes a 764 amino acid protein. Alternative splicing yields 2 isoforms of UBF, which differ by 37 amino acids.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: UBTF (human) mapping to 17q21.31; Ubtf (mouse) mapping to 11 D.

SOURCE

p-UBF (Ser 637)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 637 phosphorylated UBF 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.

Blocking peptide available for competition studies, sc-21639 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-UBF (Ser 637)-R is recommended for detection of Ser 637 phosphorylated UBF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

p-UBF (Ser 637)-R is also recommended for detection of correspomdingly phosphorylated UBF in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for UBF siRNA (h): sc-29514, UBF siRNA (m): sc-29515, UBF shRNA Plasmid (h): sc-29514-SH, UBF shRNA Plasmid (m): sc-29515-SH, UBF shRNA (h) Lentiviral Particles: sc-29514-V and UBF shRNA (m) Lentiviral Particles: sc-29515-V.

Molecular Weight of p-UBF isforms: 94/97 kDa.

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) 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.

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.