

p-CstF-64 (Ser 498): sc-16482

BACKGROUND

Polyadenylation of mRNA precursors is a two-step reaction that requires multiple protein factors. The first step, endo-nucleolytic cleavage of polyadenylation substrates, requires CstF (cleavage stimulation factor), a heterotrimer. CstF-64 contains an RNA binding domain, which is responsible for the RNA binding activity of CstF. CstF-64 is expressed in all somatic cells and in pre and postmeiotic, but not meiotic, germ cells. CstF-64 displays size heterogeneity on SDS-PAGE, due at least in part to phosphorylation. One of these phosphorylation sites, Ser 83, resides in a possible PKC consensus site of the RNA binding domain. The other two phosphorylation sites, Ser 364 and Ser 498, reside within the possible cGMP-dependent protein kinase sites.

REFERENCES

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2. Takagaki, Y., MacDonald, C.C., Shenk, T. and Manley, J.L. 1992. The human 64 kDa polyadenylation factor contains a ribonucleoprotein-type RNA binding domain and unusual auxiliary motifs. *Proc. Natl. Acad. Sci. USA* 89: 1403-1407.
3. Kleiman, F.E. and Manley, J.L. 1999. Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. *Science* 285: 1576-1579.
4. Takagaki, Y. and Manley, J.L. 2000. Complex protein interactions within the human polyadenylation machinery identify a novel component. *Mol. Cell. Biol.* 20: 1515-1525.
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6. Dass, B., McMahon, W., Jenkins, N.A., Gilbert, D.J., Copeland, N.G. and MacDonald, C.C. 2001. The gene for a variant form of the polyadenylation protein CstF-64 is on chromosome 19 and is expressed in pachytene spermatocytes in Mice. *J. Biol. Chem.* 276: 8044-8050.

CHROMOSOMAL LOCATION

Genetic locus: CSTF2 (human) mapping to Xq22.1; Cstf2 (mouse) mapping to X E3.

SOURCE

p-CstF-64 (Ser 498) is available as either goat (sc-16482) or rabbit (sc-16482-R) affinity purified polyclonal antibody raised against a short amino acid sequence containing Ser 498 phosphorylated CstF-64 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-16482 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-CstF-64 (Ser 498) is recommended for detection of Ser 498 phosphorylated CstF-64 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-CstF-64 (Ser 498) is also recommended for detection of correspondingly phosphorylated CstF-64 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CstF-64 siRNA (h): sc-35118, CstF-64 siRNA (m): sc-35119, CstF-64 shRNA Plasmid (h): sc-35118-SH, CstF-64 shRNA Plasmid (m): sc-35119-SH, CstF-64 shRNA (h) Lentiviral Particles: sc-35118-V and CstF-64 shRNA (m) Lentiviral Particles: sc-35119-V.

Molecular Weight of p-CstF-64: 64 kDa.

Positive Controls: BJAB nuclear extract: sc-2145 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-16482): use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), for rabbit primary antibody (sc-16482-R): 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: for goat primary antibody (sc-16482): 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™ Mounting Medium: sc-24941, for rabbit primary antibody (sc-16482-R): 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.