

CstF-77 (N-12): sc-132638

BACKGROUND

Polyadenylation of mRNA precursors is a two-step reaction that requires multiple protein factors. The first step, endonucleolytic cleavage of polyadenylation substrates, requires CstF (cleavage stimulation factor), a heterotrimer that is composed of three distinct subunits. Heterotrimeric CstF recognizes GU- and U-rich sequences located downstream of the polyadenylation site on RNA. CstF-77 (cleavage stimulation factor, 77 kDa subunit), also known as CstF-3, is one of the three subunits comprising CstF. It can exist as a homodimer and functions as the bridge, directly interacting with the other two CstF subunits, namely CstF-64 and CstF-50. CstF-77 is highly conserved among eukaryotes. It contains an α -helical structure with 11 HAT (Half- α -TPR-containing) repeats and is essential for CstF assembly. In addition, CstF-77 is capable of interacting with CPSF1 and FCP1, other factors involved in polyadenylation.

REFERENCES

1. Takagaki, Y., et al. 1990. A multisubunit factor, CstF, is required for polyadenylation of mammalian pre-mRNAs. *Genes Dev.* 4: 2112-2120.
2. Takagaki, Y., et al. 1997. RNA recognition by the human poly-adenylation factor CstF. *Mol. Cell. Biol.* 17: 3907-3914.
3. Kleiman, F.E., et al. 1999. Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. *Science* 285: 1576-1579.
4. Takagaki, Y., et al. 2000. Complex protein interactions within the human polyadenylation machinery identify a novel component. *Mol. Cell. Biol.* 20: 1515-1525.
5. Benoit, B., et al. 2002. Chimeric human CstF-77/*Drosophila* suppressor of forked proteins rescue suppressor of forked mutant lethality and mRNA 3' end processing in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 99: 10593-10598.
6. Pan, Z., et al. 2006. An intronic polyadenylation site in human and mouse CstF-77 genes suggests an evolutionarily conserved regulatory mechanism. *Gene* 366: 325-334.

CHROMOSOMAL LOCATION

Genetic locus: CSTF3 (human) mapping to 11p13; Cstf3 (mouse) mapping to 2 E2.

SOURCE

CstF-77 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CstF-77 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.

Blocking peptide available for competition studies, sc-132638 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

CstF-77 (N-12) is recommended for detection of CstF-77 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); non cross-reactive with family members CstF-50 or CstF-64.

CstF-77 (N-12) is also recommended for detection of CstF-77 in additional species, including bovine.

Suitable for use as control antibody for CstF-77 siRNA (h): sc-96385, CstF-77 siRNA (m): sc-142610, CstF-77 shRNA Plasmid (h): sc-96385-SH, CstF-77 shRNA Plasmid (m): sc-142610-SH, CstF-77 shRNA (h) Lentiviral Particles: sc-96385-V and CstF-77 shRNA (m) Lentiviral Particles: sc-142610-V.

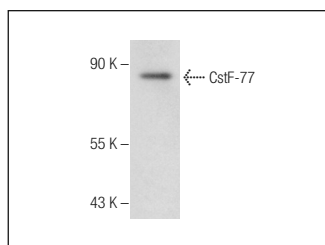
Molecular Weight of CstF-77: 77 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

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 Marker™ 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) 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™ Mounting Medium: sc-24941.

DATA



CstF-77 (N-12): sc-132638. Western blot analysis of CstF-77 expression in NIH/3T3 nuclear extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.


 MONOS
Satisfaction
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Try **CstF-77 (G-5): sc-376575** or **CstF-77 (F-3): sc-376553**, our highly recommended monoclonal alternatives to CstF-77 (N-12).