

# CstF-77 (H-300): sc-292470

## 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  $\alpha$ -helical structure with 11 HAT (half- $\alpha$ -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

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2. Takagaki, Y., et al. 1997. RNA recognition by the human polyadenylation 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.
7. Bai, Y., et al. 2007. Crystal structure of murine CstF-77: dimeric association and implications for polyadenylation of mRNA precursors. *Mol. Cell* 25: 863-875.
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## CHROMOSOMAL LOCATION

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

## SOURCE

CstF-77 (H-300) is a rabbit polyclonal antibody raised against amino acids 31-330 mapping near the N-terminus of CstF-77 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CstF-77 (H-300) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

CstF-77 (H-300) is also recommended for detection of CstF-77 in additional species, including canine, bovine and avian.

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.

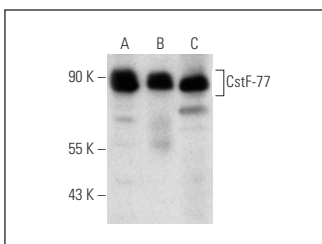
Molecular Weight of CstF-77: 77 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HL-60 whole cell lysate: sc-2209 or mouse brain extract: sc-2253.

## 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 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 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.

## DATA



CstF-77 (H-300): sc-292470. Western blot analysis of CstF-77 expression in Jurkat (A) and HL-60 (B) whole cell lysates and mouse brain tissue extract (C).

## 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.