

CstF-50 (h2): 293T Lysate: sc-175903

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. The shortest CstF subunit shares extensive homology with mammalian G protein β -subunits and has a transducin repeat domain, which is a 44 amino acid-long sequence that is repeated 7 times. CstF-50 interacts with the nuclear protein BARD1 (BRCA1-associated RING domain protein) and inhibits polyadenylation *in vitro*. CstF-50 may also be responsible for the interaction of the heterotrimeric CstF complex with other polyadenylation and 3'-end cleavage factors to form a stable complex on the pre-mRNA.

REFERENCES

1. Takagaki, Y., Manley, J.L., MacDonald, C.C., Wilusz, J. and Shenk, T. 1990. A multisubunit factor, CstF, is required for polyadenylation of mammalian pre-mRNAs. *Genes Dev.* 4: 2112-2120.
2. Takagaki, Y. and Manley, J.L. 1992. A human polyadenylation factor is a G protein β -subunit homologue. *J. Biol. Chem.* 267: 23471-23474.
3. Takagaki, Y. and Manley, J.L. 1997. RNA recognition by the human polyadenylation factor CstF. *Mol. Cell. Biol.* 17: 3907-3914.
4. Kleiman, F.E. and Manley, J.L. 1999. Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. *Science* 285: 1576-1579.
5. 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.

CHROMOSOMAL LOCATION

Genetic locus: CSTF1 (human) mapping to 20q13.2.

PRODUCT

CstF-50 (h2): 293T Lysate represents a lysate of human CstF-50 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

CstF-50 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CstF-50 antibodies. Recommended use: 10-20 μ l per lane.

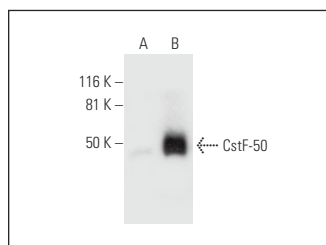
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CstF-50 (A-5): sc-393260 is recommended as a positive control antibody for Western Blot analysis of enhanced human CstF-50 expression in CstF-50 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

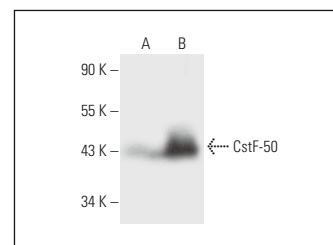
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CstF-50 (A-5): sc-393260. Western blot analysis of CstF-50 expression in non-transfected: sc-117752 (A) and human CstF-50 transfected: sc-175903 (B) 293T whole cell lysates.



CstF-50 (G-3): sc-393962. Western blot analysis of CstF-50 expression in non-transfected: sc-117752 (A) and human CstF-50 transfected: sc-175903 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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