

CRSP34 (A-2): sc-390295

BACKGROUND

In mammalian cells, transcription is regulated in part by high molecular weight coactivating complexes that mediate signals between transcriptional activators and RNA polymerase. These complexes include CRSP (for cofactor required for Sp1 activation), which is required, in conjunction with TAF_{II}s, for transcriptional activation by Sp1. CRSP is ubiquitously expressed in various tissues and functions as a multimeric complex that consists of nine distinct subunits. Several members of the CRSP family share sequence similarity with multiple components of the yeast transcriptional mediator proteins, including CRSP150, which is related to yeast Rgr1, and CRSP70, which is similar to the elongation factor TFIIS. CRSP77 and CRSP150 are also related to proteins within the putative murine mediator complex, while CRSP130 and CRSP34 are largely unrelated to either murine or yeast proteins. CRSP subunits also associate with larger multimeric coactivator complexes, including ARC/DRI, which binds directly to SREBP and nuclear hormone receptors to facilitate transcription, and with NAT, a polymerase II-interacting complex that represses activated transcription.

REFERENCES

- Kim, Y.J., et al. 1994. A multiprotein mediator of transcriptional activation and its interaction with the C-terminal repeat domain of RNA polymerase II. *Cell* 77: 599-608.
- Jiang, Y.W., et al. 1998. Mammalian mediator of transcriptional regulation and its possible role as an end-point of signal transduction pathways. *Proc. Natl. Acad. Sci. USA* 95: 8538-8543.
- Myers, L.C., et al. 1998. The Med proteins of yeast and their function through the RNA polymerase II carboxy-terminal domain. *Genes Dev.* 12: 45-54.
- Ryu, S., et al. 1999. The transcriptional cofactor complex CRSP is required for activity of the enhancer-binding protein Sp1. *Nature* 397: 446-450.
- Ryu, S. and Tjian, R. 1999. Purification of transcription cofactor complex CRSP. *Proc. Natl. Acad. Sci. USA* 96: 7137-7142.
- Andel, F., 3rd., et al. 1999. Three-dimensional structure of the human TFIID-IIA-IIB complex. *Science* 286: 2153-2156.

CHROMOSOMAL LOCATION

Genetic locus: MED27 (human) mapping to 9q34.13; Med27 (mouse) mapping to 2 B.

SOURCE

CRSP34 (A-2) is a mouse monoclonal antibody raised against amino acids 1-311 representing full length CRSP34 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

CRSP34 (A-2) is recommended for detection of CRSP34 of human origin and Med27 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

CRSP34 (A-2) is also recommended for detection of CRSP34 in additional species, including porcine.

Suitable for use as control antibody for CRSP34 siRNA (h): sc-38572, Med27 siRNA (m): sc-149353, CRSP34 shRNA Plasmid (h): sc-38572-SH, Med27 shRNA Plasmid (m): sc-149353-SH, CRSP34 shRNA (h) Lentiviral Particles: sc-38572-V and Med27 shRNA (m) Lentiviral Particles: sc-149353-V.

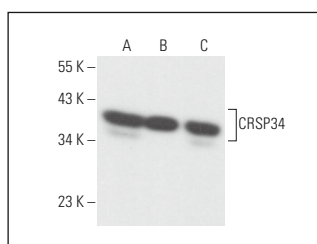
Molecular Weight of CRSP34: 35 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, TF-1 cell lysate: sc-2412 or K-562 nuclear extract: sc-2130.

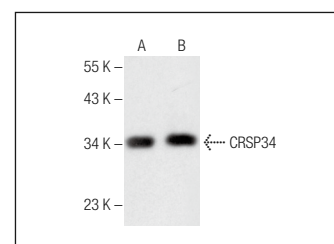
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CRSP34 (A-2): sc-390295. Western blot analysis of CRSP34 expression in K-562 nuclear extract (A) and TF-1 (B) and SK-MEL-24 (C) whole cell lysates.



CRSP34 (A-2): sc-390295. Western blot analysis of CRSP34 expression in HeLa (A) and K-562 (B) nuclear extracts.

SELECT PRODUCT CITATIONS

- Liao, Y., et al. 2021. CRSP8 promotes thyroid cancer progression by antagonizing IKKα-induced cell differentiation. *Cell Death Differ.* 28: 1347-1363.

STORAGE

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