SANTA CRUZ BIOTECHNOLOGY, INC.

CROP (P-12): sc-161020

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CROP (cisplatin resistance-associated overexpressed protein), also designated cAMP regulatory element-associated protein 1 (CREAP-1), Okadaic acid-inducible phosphoprotein OA48-18 or Luc7-like protein 3 (LUC7L3), is a 432 amino acid protein that belongs to the Luc7 family. It is ubiquitously expressed and localizes to the nucleus. The N-terminal half of the CROP protein contains cysteine/histidine motifs and leucine zipper-like repeats, while the C-terminal half is mostly hydrophilic and comprises domains rich in lysine/glutamate residues, arginine/glutamate residues and arginine/serine residues. CROP binds to cAMP regulatory element DNA sequence and may be involved in RNA splicing. The activity of CROP is modulated upon phosphorylation by SRPK1, SRPK2 and Clk1.

REFERENCES

1. Nishii, Y., et al. 2000. CROP/Luc7A, a novel serine/arginine-rich nuclear protein, isolated from cisplatin-resistant cell line. FEBS Lett. 465: 153-156.
2. Chin, L.S., et al. 2000. Identification of okadaic-acid-induced genes by mRNA differential display in glioma cells. J. Biomed. Sci. 7: 152-159.
3. Umehara, H., et al. 2003. Effect of cisplatin treatment on speckled distribution of a serine/arginine-rich nuclear protein CROP/ Luc7A. Biochem. Biophys. Res. Commun. 301: 324-329.
4. Kimura, E., et al. 2004. Serine-arginine-rich nuclear protein Luc7l regulates myogenesis in mice. Gene 341: 41-47.
5. Shipman, K.L., et al. 2006. Identification of a family of DNA-binding proteins with homology to RNA splicing factors. Biochem. Cell Biol. 84: 9-19.
6. Matsuoka, S., et al. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. Science 316: 1160-1166.
7. Webby, C.J., et al. 2009. Jmjd6 catalyses lysyl-hydroxylation of U2AF65, a protein associated with RNA splicing. Science 325: 90-93.

CHROMOSOMAL LOCATION

Genetic locus: LUC7L3 (human) mapping to 17q21.33; Luc7l3 (mouse) mapping to 11 D.

SOURCE

CROP (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CROP 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-161020 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CROP (P-12) is recommended for detection of CROP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

CROP (P-12) is also recommended for detection of CROP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CROP siRNA (h): sc-93573, CROP siRNA (m): sc-142578, CROP shRNA Plasmid (h): sc-93573-SH, CROP shRNA Plasmid (m): sc-142578-SH, CROP shRNA (h) Lentiviral Particles: sc-93573-V and CROP shRNA (m) Lentiviral Particles: sc-142578-V.

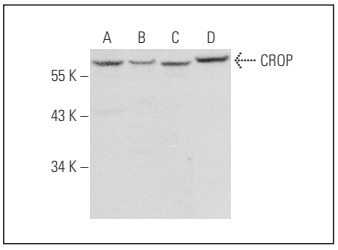
Molecular Weight of CROP: 51 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



CROP (P-12): sc-161020. Western blot analysis of CROP expression in HeLa (**A**), U-2 OS (**B**), Jurkat (**C**) and Hep G2 (**D**) whole cell lysates.

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.