SANTA CRUZ BIOTECHNOLOGY, INC.

E2F-8 (B-9): sc-514064

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

E2F-8 is an 867 amino acid nuclear protein that contains 2 DNA-binding domains and belongs to a large family of transcription factors that includes E2F-1, E2F-2, E2F-3, E2F-4, E2F-5, E2F-6 and E2F-7. Existing as a homodimer or as a heterodimer with E2F-7, E2F-8 functions to bind DNA at the E2 recognition site, 5'-TTTC[CG]CGC-3', thereby inhibiting E2F-dependent transcription and regulating the expression of genes that are required for cell cycle progression. The gene encoding E2F-8 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. Di Stefano, L., et al. 2003. E2F7, a novel E2F featuring DP-independent repression of a subset of E2F-regulated genes. EMBO J. 22: 6289-6298.
2. Maiti, B., et al. 2005. Cloning and characterization of mouse E2F-8, a novel mammalian E2F family member capable of blocking cellular proliferation. J. Biol. Chem. 280: 18211-18220.
3. Christensen, J., et al. 2005. Characterization of E2F-8, a novel E2F-like cell-cycle regulated repressor of E2F-activated transcription. Nucleic Acids Res. 33: 5458-5470.
4. Logan, N., et al. 2005. E2F-8: an E2F family member with a similar organization of DNA-binding domains to E2F-7. Oncogene 24: 5000-5004.

CHROMOSOMAL LOCATION

Genetic locus: E2F8 (human) mapping to 11p15.1; E2f8 (mouse) mapping to 7 B4.

SOURCE

E2F-8 (B-9) is a mouse monoclonal antibody raised against amino acids 664-764 mapping near the C-terminus of E2F-8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

E2F-8 (B-9) is available conjugated to agarose (sc-514064 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514064 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514064 PE), fluorescein (sc-514064 FITC), Alexa Fluor® 488 (sc-514064 AF488), Alexa Fluor® 546 (sc-514064 AF546), Alexa Fluor® 594 (sc-514064 AF594) or Alexa Fluor® 647 (sc-514064 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514064 AF680) or Alexa Fluor® 790 (sc-514064 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

E2F-8 (B-9) is recommended for detection of E2F-8 of mouse, rat and human 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).

Suitable for use as control antibody for E2F-8 siRNA (h): sc-96849, E2F-8 siRNA (m): sc-143248, E2F-8 shRNA Plasmid (h): sc-96849-SH, E2F-8 shRNA Plasmid (m): sc-143248-SH, E2F-8 shRNA (h) Lentiviral Particles: sc-96849-V and E2F-8 shRNA (m) Lentiviral Particles: sc-143248-V.

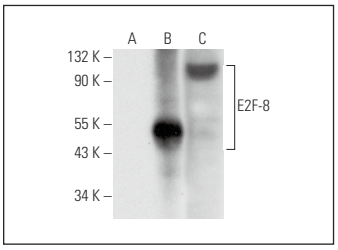
Molecular Weight of E2F-8: 100 kDa.

Positive Controls: E2F-8 (h): 293 Lysate: sc-114760, Neuro-2A whole cell lysate: sc-364185 or HeLa nuclear extract: sc-2120.

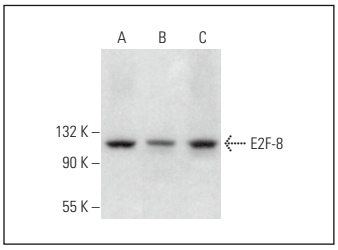
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



E2F-8 (B-9): sc-514064. Western blot analysis of E2F-8 expression in non-transfected 293: sc-110760 (**A**) and human E2F-8 transfected 293: sc-114760 (**B**) whole cell lysates and HeLa nuclear extract (**C**).



E2F-8 (B-9): sc-514064. Western blot analysis of E2F-8 expression in WEHI-231 nuclear extract (**A**) and M1 (**B**) and Neuro-2A (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Cuitiño, M.C., et al. 2019. Two distinct E2F transcriptional modules drive cell cycles and differentiation. Cell Rep. 27: 3547-3560.e5.
2. Wang, H., et al. 2020. Long noncoding RNA SNHG6 promotes proliferation and angiogenesis of cholangiocarcinoma cells through sponging miR-101-3p and activation of E2F8. J. Cancer 11: 3002-3012.

RESEARCH USE

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