

E2F-2 (A-6): sc-515402

BACKGROUND

The human retinoblastoma gene product appears to play an important role in the negative regulation of cell proliferation. Functional inactivation of Rb can be mediated either through mutation or as a consequence of interaction with DNA tumor virus-encoded proteins. Of all the Rb associations described to date, the identification of a complex between Rb and the transcription factor E2F most directly implicates Rb in regulation of cell proliferation. E2F was originally identified through its role in transcriptional activation of the adenovirus E2 promoter. Sequences homologous to the E2F binding site have been found upstream of a number of genes that encode proteins with putative functions in the G1 and S phases of the cell cycle. E2F-1 is a member of a broader family of transcription regulators including E2F-2, E2F-3, E2F-4, E2F-5, E2F-6 and E2F-7 each of which forms heterodimers with a second protein, DP-1, forming an "active" E2F transcriptional regulatory complex.

CHROMOSOMAL LOCATION

Genetic locus: E2F2 (human) mapping to 1p36.12; E2f2 (mouse) mapping to 4 D3.

SOURCE

E2F-2 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 414-437 at the C-terminus of E2F-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515402 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-515398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

E2F-2 (A-6) is recommended for detection of E2F-2 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-2 siRNA (h): sc-29298, E2F-2 siRNA (m): sc-29299, E2F-2 shRNA Plasmid (h): sc-29298-SH, E2F-2 shRNA Plasmid (m): sc-29299-SH, E2F-2 shRNA (h) Lentiviral Particles: sc-29298-V and E2F-2 shRNA (m) Lentiviral Particles: sc-29299-V.

E2F-2 (A-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

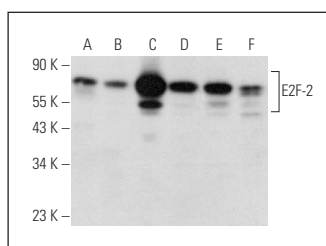
Molecular Weight of E2F-2: 55 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or Ramos cell lysate: sc-2216.

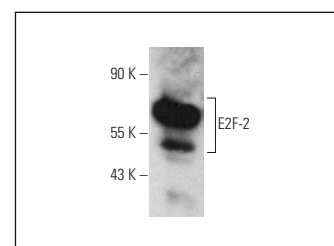
RECOMMENDED SUPPORT REAGENTS

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



E2F-2 (A-6): sc-515402. Western blot analysis of E2F-2 expression in PC-12 (A), K-562 (B), Ramos (C), Hep G2 (D) and HeLa (E) whole cell lysates and A-431 nuclear extract (F).



E2F-2 (A-6): sc-515402. Western blot analysis of E2F-2 expression in NIH/3T3 nuclear extract.

SELECT PRODUCT CITATIONS

1. Kotwal, A., et al. 2020. Hsp90 chaperone facilitates E2F1/2-dependent gene transcription in human breast cancer cells. *Eur. J. Cell Biol.* 100: 151148.

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.

PROTOCOLS

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



See **E2F-2 (TFE-25): sc-9967** for E2F-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.