

E2F-1 (KH20): sc-56662

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: E2F1 (human) mapping to 20q11.22; E2f1 (mouse) mapping to 2 H1.

SOURCE

E2F-1 (KH20) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 1-89 of E2F-1 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.

E2F-1 (KH20) is available conjugated to agarose (sc-56662 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56662 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56662 PE), fluorescein (sc-56662 FITC), Alexa Fluor® 488 (sc-56662 AF488), Alexa Fluor® 546 (sc-56662 AF546), Alexa Fluor® 594 (sc-56662 AF594) or Alexa Fluor® 647 (sc-56662 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-56662 AF680) or Alexa Fluor® 790 (sc-56662 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

E2F-1 (KH20) is recommended for detection of E2F-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for E2F-1 siRNA (h): sc-29297, E2F-1 siRNA (m): sc-35247, E2F-1 siRNA (r): sc-61861, E2F-1 shRNA Plasmid (h): sc-29297-SH, E2F-1 shRNA Plasmid (m): sc-35247-SH, E2F-1 shRNA Plasmid (r): sc-61861-SH, E2F-1 shRNA (h) Lentiviral Particles: sc-29297-V, E2F-1 shRNA (m) Lentiviral Particles: sc-35247-V and E2F-1 shRNA (r) Lentiviral Particles: sc-61861-V.

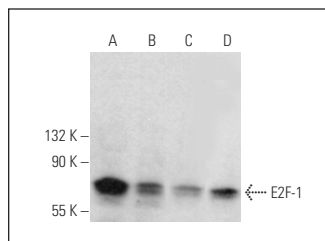
Molecular Weight of E2F-1: 60 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HEL 92.1.7 cell lysate: sc-2270 or MOLT-4 cell lysate: sc-2233.

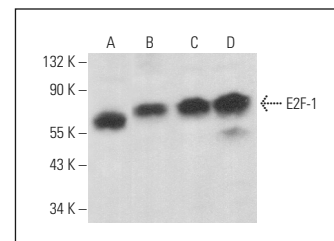
STORAGE

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

DATA



E2F-1 (KH20): sc-56662. Western blot analysis of E2F-1 expression in MOLT-4 (A), HEL 92.1.7 (B), NAMALWA (C) and A-431 (D) whole cell lysates.



E2F-1 (KH20): sc-56662. Western blot analysis of E2F-1 expression in HeLa nuclear extract (A) and SJRH30 (B), Caco-2 (C) and HEL 92.1.7 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Hsu, S.I., et al. 2001. TRIP-Br: a novel family of PHD zinc finger- and bromodomain-interacting proteins that regulate the transcriptional activity of E2F-1/DP-1. *EMBO J.* 20: 2273-2285.
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- Fan, H., et al. 2011. Molecular mechanism underlying the differential MYF6 expression in postnatal skeletal muscle of Duroc and Pietrain breeds. *Gene* 486: 8-14.
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- Ting, J.H., et al. 2014. Targeted gene mutation of E2F1 evokes age-dependent synaptic disruption and behavioral deficits. *J. Neurochem.* 129: 850-863.
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RESEARCH USE

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

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