E2F-1 (KH95): sc-251

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 transcriptional regulators including Rb, E2F-2, E2F-3, E2F-4, E2F-5 and E2F-6, 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 (KH95) is a mouse monoclonal antibody raised against amino acids 342-386 of E2F-1 of human origin.

PRODUCT

Each vial contains 200 μg IgG2a 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-251 X, 200 μg/0.1 ml.

E2F-1 (KH95) is available conjugated to agarose (sc-251 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-251 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-251 PE), fluorescein (sc-251 FITC), Alexa Fluor® 488 (sc-251 AF488) or Alexa Fluor® 647 (sc-251 AF647), 200 μg/ml, for IF, IHC(P) and FCM.

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APPLICATIONS

E2F-1 (KH95) 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), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


E2F-1 (KH95) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of E2F-1: 60 kDa.

STOREAGE

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

DATA

E2F-1 (KH95) HRP: sc-251 HRP. Direct western blot analysis of E2F-1 expression in A-431 (A), HeLa (B), HEL 92.1.7 (C), MOLT-4 (D) and Ramos (E) whole cell lysates and HeLa nuclear extract (F).

E2F-1 (KH95): sc-251. Immunoperoxidase staining of formalin fixed, paraffin embedded human testis tissue showing nuclear staining of subset of cells in seminiferous duct (A). Immunoperoxidase staining of formalin fixed, paraffin embedded human colorectal cancer tissue showing nuclear staining of tumor cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS


RESEARCH USE

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