

NF-E2 (D-6): sc-365083

BACKGROUND

The nuclear DNA binding protein NF-E2 regulates expression of globulin genes in developing erythroid cells through interaction with upstream AP-1-like recognition sites. More specifically, NF-E2 recognizes a site containing an intact AP-1 binding motif, preceded by a G residue two base pairs upstream. NF-E2 is an obligate heterodimer composed of NF-E2 p45 and NF-E2 p18. NF-E2 p18, also known as NF-E2U or MAFK, is a ubiquitously expressed component that is related to the v-Maf oncogene. It contains a basic-leucine zipper domain that functions in DNA binding and dimerization. In addition, NF-E2 p18 may play a role in erythroid differentiation. The major component of NF-E2 is a polypeptide, designated NF-E2 p45, that belongs to the basic region-leucine zipper family of transcription factors. This subunit of NF-E2 is specifically expressed at low level in hematopoietic progenitor cells and differentiated cells of the erythroid, megakaryocyte and mast cell lineages.

CHROMOSOMAL LOCATION

Genetic locus: NFE2 (human) mapping to 12q13.13; Nfe2 (mouse) mapping to 15 F3.

SOURCE

NF-E2 (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 343-369 at the C-terminus of NF-E2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgM 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-365083 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-365083 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NF-E2 (D-6) is recommended for detection of NF-E2 p45 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). NF-E2 (D-6) is also recommended for detection of NF-E2 p45 in additional species, including porcine.

Suitable for use as control antibody for NF-E2 siRNA (h): sc-36046, NF-E2 p18 siRNA (m): sc-38104, NF-E2 shRNA Plasmid (h): sc-36046-SH, NF-E2 p18 shRNA Plasmid (m): sc-38104-SH, NF-E2 shRNA (h) Lentiviral Particles: sc-36046-V and NF-E2 p18 shRNA (m) Lentiviral Particles: sc-38104-V.

NF-E2 (D-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

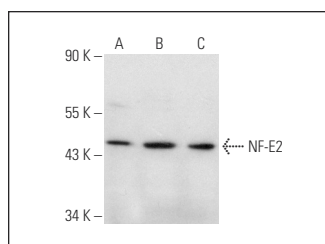
Molecular Weight of NF-E2: 45 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, U-937 cell lysate: sc-2239 or WEHI-231 whole cell lysate: sc-2213.

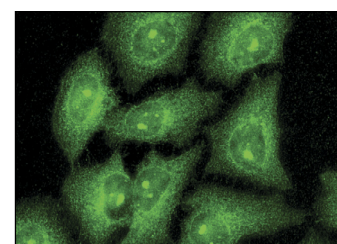
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



NF-E2 (D-6): sc-365083. Western blot analysis of NF-E2 expression in U-937 (A), WEHI-231 (B) and K-562 (C) whole cell lysates.



NF-E2 (D-6): sc-365083. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Li, Y., et al. 2014. The up-regulation of miR-199b-5p in erythroid differentiation is associated with GATA-1 and NF-E2. *Mol. Cells* 37: 213-219.
- Han, L., et al. 2016. Calreticulin-mutant proteins induce megakaryocytic signaling to transform hematopoietic cells and undergo accelerated degradation and Golgi-mediated secretion. *J. Hematol. Oncol.* 9: 45.

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.