



NF-E2 p18 (S-16): sc-16276

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. The major component of NF-E2 is a 45 kDa polypeptide, designated p45 NF-E2, that belongs to the basic region-leucine zipper family of transcription factors. This subunit of NF-E2 is specifically expressed at low levels in hematopoietic progenitor cells and differentiated cells of the erythroid, megakaryocyte and mast cell lineages. NF-E2 recognizes a site containing an intact AP-1 binding motif, preceded by a guanine two base pairs upstream. NF-E2 is apparently an obligate heterodimer of p45 NF-E2 and a widely expressed 18 kDa component that is related to the v-Maf oncogene.

REFERENCES

1. Mignotte, V., et al. 1989. Two tissue-specific factors bind the erythroid promoter of the human porphobilinogen deaminase gene. *Nucl. Acids Res.* 17: 37-54.
2. Philipsen, S., et al. 1990. The β -globin dominant control region: hypersensitive site 2. *EMBO J.* 9: 2159-2167.
3. Ney, P.A., et al. 1990. Tandem AP-1-binding sites within the human β -globin dominant control region function as an inducible enhancer in erythroid cells. *Genes Dev.* 4: 993-1006.
4. Jarman, A.P., et al. 1991. Characterization of the major regulatory element upstream of the human α -globin gene cluster. *Mol. Cell Biol.* 11: 4679-4689.
5. Andrews, N.C., et al. 1993. Erythroid transcription factor NF-E2 is a haematopoietic-specific basic-leucine zipper protein. *Nature* 362: 722-728.
6. Peters, L.L., et al. 1993. Mouse microcytic anaemia caused by a defect in the gene encoding the globin enhancer-binding protein NF-E2. *Nature* 362: 768-770.
7. Andrews, N.C., et al. 1993. The ubiquitous subunit of erythroid transcription factor NF-E2 is a small basic-leucine zipper protein related to the v-Maf oncogene. *Proc. Natl. Acad. Sci. USA* 90: 11488-11492.

SOURCE

NF-E2 p18 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NF-E2 p18 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16276 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-16276 X, 200 μ g/0.1 ml.

STORAGE

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

APPLICATIONS

NF-E2 p18 (S-16) is recommended for detection of NF-E2 p18 (also designated MafK) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 NF-E2 p18 siRNA (h): sc-38103 and NF-E2 p18 siRNA (m): sc-38104.

NF-E2 p18 (S-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NF-E2 p18: 18 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Papaiahgari, S., et al. 2004. NADPH oxidase and ERK signaling regulates hyperoxia-induced Nrf2-ARE transcriptional response in pulmonary epithelial cells. *J. Biol. Chem.* 279: 42302-42312.
2. de Vooght, K.M., et al. 2008. GATA-1 binding sites in exon 1 direct erythroid-specific transcription of PPOX. *Gene.* 409: 83-91.

RESEARCH USE

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

PROTOCOLS

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