

PEBP2 β (FL-182): sc-20693

BACKGROUND

The transcription factor Polyomavirus enhancer binding protein 2 (PEBP2), also designated Osf2 (osteoblast-specific transcription factor), CBFA1 (core binding factor) and AML3 (acute myeloid leukemia), is composed of two subunits, α and β , which are essential for the regulation of hematopoiesis and osteogenesis. The PEBP2 α subunits, PEBP2 α A, PEBP2 α B and PEBP2 α C, are encoded by 3 RUNX genes, all of which contain a 128-amino acid region homologous to the highly conserved *Drosophila* segmentation gene, runt. This region is involved in DNA binding and heterodimerization with the regulatory β subunit, which facilitates DNA binding of the α subunit. Both subunits are required for *in vivo* function; the disruption of either gene results in a lack of definitive hematopoiesis followed by embryo death *in utero* due to hemorrhage in the central nervous system. The gene encoding PEBP2 β is the target of chromosomal inversion 16 (p13;q22) with the smooth muscle myosin heavy chain, producing a chimeric gene, PEBP2 β /CBF β -SMMHC, that is associated with human acute myeloid leukemia.

CHROMOSOMAL LOCATION

Genetic locus: CFBF (human) mapping to 16q22.1; Cbfb (mouse) mapping to 8 D3.

SOURCE

PEBP2 β (FL-182) is a rabbit polyclonal antibody raised against amino acids 1-182 representing full length PEBP2 β 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-20693 X, 200 μ g/0.1 ml.

APPLICATIONS

PEBP2 β (FL-182) is recommended for detection of PEBP2 β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PEBP2 β (FL-182) is also recommended for detection of PEBP2 β in additional species, including bovine and avian.

Suitable for use as control antibody for PEBP2 β siRNA (h): sc-37681, PEBP2 β siRNA (m): sc-37682, PEBP2 β shRNA Plasmid (h): sc-37681-SH, PEBP2 β shRNA Plasmid (m): sc-37682-SH, PEBP2 β shRNA (h) Lentiviral Particles: sc-37681-V and PEBP2 β shRNA (m) Lentiviral Particles: sc-37682-V.

PEBP2 β (FL-182) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

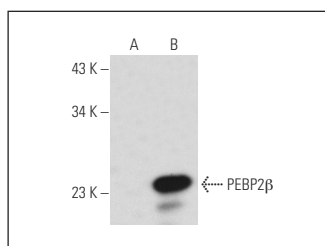
Molecular Weight of PEBP2 β : 22 kDa.

Positive Controls: PEBP2 β (h): 293T Lysate: sc-111108.

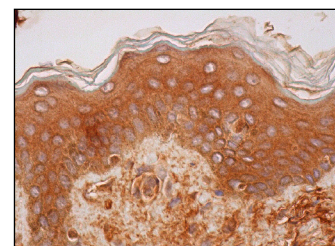
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PEBP2 β (FL-182): sc-20693. Western blot analysis of PEBP2 β expression in non-transfected: sc-117752 (A) and human PEBP2 β transfected: sc-111108 (B) whole cell lysates.



PEBP2 β (FL-182): sc-20693. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, melanocytes and Langerhans cells.

SELECT PRODUCT CITATIONS

- Song, L., et al. 2005. Origin and characterization of multipotential mesenchymal stem cells derived from adult human trabecular bone. *Stem Cells Dev.* 14: 712-721.
- Pham, D., et al. 2012. Twist1 regulates Ifng expression in Th1 cells by interfering with Runx3 function. *J. Immunol.* 189: 832-840.

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.



Try **PEBP2 β (141,4,1): sc-56751** or **PEBP2 β (A-4): sc-166142**, our highly recommended monoclonal alternatives to PEBP2 β (FL-182).