



PEBP2 β (m): 293T Lysate: sc-122480

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 three 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.

REFERENCES

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3. Ogawa, E., et al. 1993. Molecular cloning and characterization of PEBP2 β , the heterodimeric partner of a novel *Drosophila* runt-related DNA binding protein PEBP2 α . *Virology* 194: 314-331.
4. Tanaka, Y., et al. 1998. The chimeric protein, PEBP2 β /CBF β -SMMHC, disorganizes cytoplasmic stress fibers and inhibits transcriptional activation. *Oncogene* 17: 699-708.
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7. Namba, K., et al. 2000. Indispensable role of the transcription factor PEBP2/CBF in angiogenic activity of a murine endothelial cell MSS31. *Oncogene* 19: 106-114.
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CHROMOSOMAL LOCATION

Genetic locus: Cbfb (mouse) mapping to 8 D3.

PRODUCT

PEBP2 β (m): 293T Lysate represents a lysate of mouse PEBP2 β transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PEBP2 β (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PEBP2 β antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.