

Ebi3 (m): 293T Lysate: sc-119902

BACKGROUND

Epstein-Barr virus-induced gene 3 (Ebi3) is a widely expressed homolog to the interleukin IL-12 p40 subunit protein that forms a heterodimer with either IL-12 p35 or an IL-12 p35 homolog, p28, to create a new cytokine (IL-27). IL-27 is an early product of activated antigen-presenting cells and drives rapid clonal expansion of naive but not memory CD4⁺ T cells. Interferon- β differentially regulates expression of the IL-12 family members p35, p40, p19 and Ebi3 in activated human dendritic cells. Ebi3 may function to antagonize IL-12 and to inhibit the development of a Th1 immune response. Ebi3 is strongly expressed in Hodgkin and Reed-Sternberg cells, independently of the EBV status of the tumor cells. Research suggests that Ebi3 may be an additional component of the repertoire employed by Hodgkin and Reed-Sternberg cells to inhibit an effective anti-tumor or anti-viral immune response. The human Ebi3 gene maps to chromosome 19p13.3 and encodes a secreted glycoprotein that is expressed in spleen and tonsils, and at high levels in full-term placenta.

REFERENCES

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4. Nieuwenhuis, E.E., et al. 2002. Disruption of T helper 2-immune responses in Epstein-Barr virus-induced gene 3-deficient mice. *Proc. Natl. Acad. Sci. USA* 99: 16951-16956.
5. Niedobitek, G., et al. 2002. Frequent expression of the Epstein-Barr virus (EBV)-induced gene, EBI3, an IL-12 p40-related cytokine, in Hodgkin and Reed-Sternberg cells. *J. Pathol.* 198: 310-316.
6. Pflanz, S., et al. 2002. IL-27, a heterodimeric cytokine composed of Ebi3 and p28 protein, induces proliferation of naive CD4⁺ T cells. *Immunity* 16: 779-790.
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CHROMOSOMAL LOCATION

Genetic locus: Ebi3 (mouse) mapping to 17 D.

PRODUCT

Ebi3 (m): 293T Lysate represents a lysate of mouse Ebi3 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Ebi3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Ebi3 antibody. Recommended use: 10-20 μ l per lane.

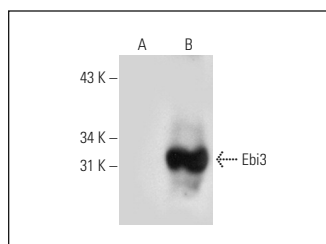
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ebi3 (G-4): sc-166158 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Ebi3 expression in Ebi3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



Ebi3 (G-4): sc-166158. Western blot analysis of Ebi3 expression in non-transfected: sc-117752 (A) and mouse Ebi3 transfected: sc-119902 (B) 293T whole cell lysates.

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.