

IL-23 (G-6): sc-271280

BACKGROUND

The p19 protein shares sequence similarity with IL-6 subfamily members and is distantly related to the p35 subunit of IL-12. p19 shows no biological activity by itself; instead, it combines with the p40 subunit of IL-12 to form a biologically active, composite cytokine, IL-23. IL-23 shares some *in vivo* functions with IL-12, including the activation of the transcription factor Stat4. Indeed, the receptors for each appear to share one subunit, but also have at least one distinct subunit. Activated dendritic cells secrete detectable levels of this heterodimeric complex and IL-23 binds to IL-12R β 1 but fails to engage IL-12R β 2. Similar to IL-12, human IL-23 stimulates IFN- γ production and proliferation in PHA blast T cells, as well as in CD45RO (memory) T cells. Ubiquitous transgenic expression of the IL-23 subunit p19 induces multiorgan inflammation, runting, infertility and premature death. The gene which encodes IL-23 maps to human chromosome 12.

REFERENCES

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3. Frucht, D.M. 2002. IL-23: a cytokine that acts on memory T cells. *Sci. STKE* 2002: pe1.
4. Cooper, A.M., et al. 2002. Mice lacking bioactive IL-12 can generate protective, antigen-specific cellular responses to mycobacterial infection only if the IL-12 p40 subunit is present. *J. Immunol.* 168: 1322-1327.
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6. Vanden Eijnden, S., et al. 2005. IL-23 upregulates IL-10 and induces IL-17 synthesis by polyclonally activated naive T cells in human. *Eur. J. Immunol.* 35: 469-475.
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CHROMOSOMAL LOCATION

Genetic locus: IL23A (human) mapping to 12q13.3; Il23a (mouse) mapping to 10 D3.

SOURCE

IL-23 (G-6) is a mouse monoclonal antibody raised against amino acids 75-187 mapping near the C-terminus of IL-23 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IL-23 (G-6) is recommended for detection of IL-23 α subunit p19 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-23 siRNA (h): sc-43860, IL-23 siRNA (m): sc-60028, IL-23 shRNA Plasmid (h): sc-43860-SH, IL-23 shRNA Plasmid (m): sc-60028-SH, IL-23 shRNA (h) Lentiviral Particles: sc-43860-V and IL-23 shRNA (m) Lentiviral Particles: sc-60028-V.

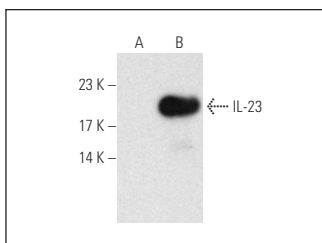
Molecular Weight of IL-23 p19 subunit: 19 kDa.

Positive Controls: IL-23 (m): 293T Lysate: sc-121044.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



IL-23 (G-6): sc-271280. Western blot analysis of IL-23 expression in non-transfected: sc-117752 (A) and mouse IL-23 transfected: sc-121044 (B) 293T whole cell lysates.

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.