

6 rue Dr Jean-François-Xavier Girod BP 1985 25020 Besançon cedex - France Tel: +33 (0)3 81 41 38 38 Fax: +33 (0)3 81 41 36 36 www.diaclone.com Email: Info@diaclone.com

Anti-Human IL-12 p40 Azide Free

PRODUCT SPECIFICATIONS

Catalogue N°	855.130.000 - 200μg / 200μl 855.130.005 - 500μg / 500μl
Target species	Human
Specificity	Recognises both natural and recombinant p40 subunit alone and in its IL-12 form (associated with p35) and in its IL-23 form (associated with p19)
Clone	B-P24
Application	ELISA
	Flow Cytometry
	ELISpot
Hybridoma	Myeloma X63/AG.8653 x Balb/c spleen cells
Immunisation	Recombinant human IL-12
Quantity	200µg or 500µg (Discovery Size also available please enquire)
lsotype	Mouse lgG1 Kappa light chain
Format	Phosphate-buffered saline. Sterile-filtered through 0.22 μm . Carrier and preservative free
Storage	Stable at +2-8°C for 12 months. For longer storage freeze aliquots.
Synonym	IL-12/IL23p40
	IL-12p70

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REFERENCES

Nagai, T. et al., J Immunol.,2003; 171(10): 5233-43. - Pubmed link 🗹

BACKGROUND

IL-12 is a pleiotropic cytokine initially called cytotoxic lymphocyte maturation factor (CLMF) or natural killer cell stimulatory factor (NKSF) mainly produced by monocytes, macrophages and dendritic cells in response to bacterial products or upon interaction with activated T Cell.

IL-12 induces IFNg production and increases proliferation and cytotoxic activity of T and NK cells. Moreover, IL-12 induces CD4+ polarization to the Th1 phenotype that mediates immunity against intracellular pathogens.

IL-12p70 is the biologically active form and is composed of two subunits: IL-12p35 (also named IL-12A) and IL-12p40 (also named IL-12B). The p35 subunit has homology to IL-6, while p40 has homology with IL-23. The p40 subunit has been found to be expressed in a higher excess over p70. It is present in serum and plasma as a monomer, a heterodimer with IL-12p35 (biologically active IL-12p70) or heterodimer with IL-23p19 (IL-23). The subunits are genetically unrelated and are regulated independently: IL-12p40 is produced constitutively and in excess of IL-12p35 and IL-23p19.

Several studies show that IL-12p40, in monomer or homodimer form, was able to bind to IL-12R beta-1 and seem to be antagonist to IL-12p70 and IL-23 bounding.

Following these properties and the role of IL-12 in autoimmunity, IL-12p40 was described as a target in the treatment of autoimmune and systemic inflammatory diseases (Crohn's disease, Psoriasis, multiple sclerosis).

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