

## Biotin anti-human IL-12/IL-23 p40 (monomer, dimer, heterodimer) Antibody

<b>Catalog# / Size</b>	508801 / 50 µg 508802 / 500 µg
<b>Clone</b>	C8.6
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-12 p40, Interleukin-23 p40, Cytotoxic lymphocyte maturation factor (CLMF), Natural killer cell stimulatory factor (NKSF), CTL maturation factor (TcMF), T-cell stimulating factor (TSF)
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	The C8.6 antibody reacts with human IL-12 p40 subunit of the IL-12 p70 heterodimer and IL-23 p40 subunit of the IL-23 p19/p40, as well as p40 monomer and homodimer. The C8.6 antibody has been reported to strongly inhibit different biological activities of IL-12, (e.g., IFN-gamma induction, mitogenic effects on PHA blasts, and enhancement of NK cell-mediated cytotoxicity). The C8.6 antibody can neutralize the bioactivity of natural or recombinant IL-12.

### Product Details

<b>Verified Reactivity</b>	Human, IL-12/IL-23 p40 subunit (monomer, homodimer and heterodimer IL-12 p35/p40 or IL-23 p19/p40)
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	COS-expressed p40 subunit of human IL-12
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ELISA Detection</a> , <a href="#">ELISPOT Detection</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">ELISA assay</a> . For ELISA detection applications, a concentration range of 0.5 - 2.0 µg/ml is recommended. To obtain a linear standard curve, serial dilutions of IL-12 p40 recombinant protein ranging from 4000 to 30 pg/ml are recommended for each ELISA plate. To obtain a linear standard curve, serial dilutions of IL-12 p70 recombinant protein ranging from 1000 to 8 pg/ml are recommended for each ELISA plate. For use as an ELISPOT detection antibody, a concentration range of 1-4 µg/ml is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	<b>Neutralization<sup>1,2,3</sup>:</b> The LEAF™ Purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of human IL-12 bioactivity (Cat. No. 508804).
<b>Additional Product Notes</b>	<b>ELISA or ELISPOT Detection<sup>1</sup>:</b> The biotinylated C8.6 antibody is useful as a detection antibody for an IL-12 p40 specific sandwich ELISA or ELISPOT assay, when used in conjunction with the C8.3 antibody (Cat. No. 501702/501704) as the capture antibody. The biotinylated C8.6 antibody is useful as a detection antibody for an IL-12 p70 specific sandwich ELISA or ELISPOT assay, when used in conjunction with the Purified 7B12 antibody (Cat. No. 511002/511004) as the capture antibody. Each lot of this antibody is quality control tested by ELISA assay.
<b>Application References</b>	1. D'Andrea A, <i>et al.</i> 1992. <i>J. Exp. Med.</i> 176:1387. 2. Goodier M, <i>et al.</i> 2000. <i>J. Immunol.</i> 165:139. 3. Aragane Y, <i>et al.</i> 1994. <i>J. Immunol.</i> 153:5366.
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	1. Amici SA, <i>et al.</i> 2018. <i>Front Immunol.</i> 16:e2005090. <a href="#">PubMed</a>

RRID

AB\_315528 (BioLegend Cat. No. 508801)  
AB\_315529 (BioLegend Cat. No. 508802)

## Antigen Details

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<b>Structure</b>	Cytokine; monomer, heterodimer (p40:p35 or p40:p19) or homodimer (p40:p40)
<b>Bioactivity</b>	IL-12 p70 (p40:p35) induces IFN- $\gamma$ , TNF- $\alpha$ production in T and NK cells; costimulation of PBL proliferation; proliferation/differentiation of T <sub>H</sub> 1 T lymphocytes. IL-23 (p40:p19) induces proliferation and production of IFN- $\gamma$ by human me
<b>Cell Sources</b>	Dendritic cells, monocytes/macrophages, B cells, T cells
<b>Cell Targets</b>	T cells, NK cells, PBL
<b>Receptors</b>	IL-12R $\beta$ 1 binds p40; dimeric with IL-12R $\beta$ 2 binds p35
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Fitzgerald K, <i>et al.</i> Eds. 2001. The Cytokine FactsBook. Academic Press, San Diego.</li><li>2. Quesniaux V. 1992. <i>Research Immunol.</i> 143:385.</li><li>3. Trinchieri G, <i>et al.</i> 1992 <i>Prog. Growth Factor Res.</i> 4:355.</li><li>4. Trinchieri G, <i>et al.</i> 1993 <i>Immunol. Today.</i> 14:335.</li><li>5. Oppmann B, <i>et al.</i> 2000 <i>Immunity.</i> 13:715.</li><li>6. Aggarwal S, <i>et al.</i> 2003 <i>J. Biol. Chem.</i> 278:1910.</li><li>7. Parham C, <i>et al.</i> 2002 <i>J. Immunol.</i> 168:5699.</li><li>8. Belladonna ML, <i>et al.</i> 2002 <i>J. Immunol.</i> 168:5448.</li><li>9. Lankford CS, <i>et al.</i> 2003 <i>J. Leukoc. Biol.</i> 73:49.</li></ol>
<b>Regulation</b>	Downregulated by IL-10; homodimeric p40 antagonistic to functional p70 heterodimer; p40 monomer has no function; p40 subunit in common with IL-23
<b>Gene ID</b>	<a href="#">3593</a>

## Related Protocols

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[Active Protocols: Sandwich ELISA - Video](#)

[Sandwich ELISA Protocol](#)

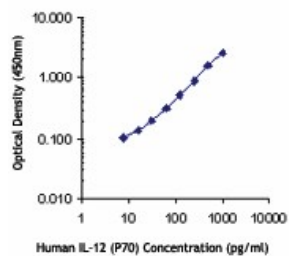
## Other Formats

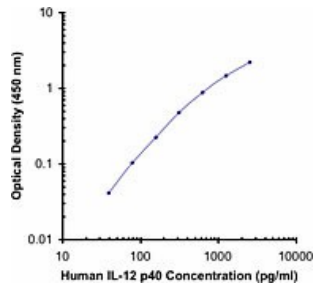
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Biotin anti-human IL-12/IL-23 p40 (monomer, dimer, heterodimer), Ultra-LEAF™ Purified anti-human IL-12/IL-23 p40 (monomer, dimer, heterodimer)

## Product Data

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