

## APC anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer) Antibody

|                          |  |
|--------------------------|--|
| <b>Catalog# / Size</b>   | 505205 / 25 µg<br>505206 / 100 µg  |
| <b>Clone</b>             | C15.6  |
| <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>           | Rat IgG1, κ  |
| <b>Description</b>       | The C15.6 antibody reacts with mouse IL-12 p40 subunit of the IL-12 p70 and IL-23 p40 subunit of the IL-23 p19/p40, as well as p40 monomer and homodimer, or heterodimer. The C15.6 antibody can not neutralize the bioactivity of natural or recombinant IL-12. |

### Product Details

|                               |  |
|-------------------------------|--|
| <b>Verified Reactivity</b>    | Mouse, 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>           | Rat  |
| <b>Immunogen</b>              | CHO-expressed, recombinant mouse IL-12 p70   |
| <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 APC under optimal conditions.  |
| <b>Concentration</b>          | 0.2 mg/ml  |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>  |
| <b>Application</b>            | <a href="#">ICFC - Quality tested</a>  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  |
| <b>Excitation Laser</b>       | Red Laser (633 nm)   |
| <b>Application Notes</b>      | <b>ELISA or ELISPOT Capture</b> <sup>1,2,4,6,8,10</sup> : The purified C15.6 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated C17.8 (Cat. No. 505302) antibody as the detecting antibody. This assay detects p40 as monomer, homodimer, or heterodimer complexed with p35. The LEAF™ purified antibody is suggested for ELISPOT capture.<br><b>Additional reported applications (for the relevant formats) include:</b> immunohistochemical staining <sup>9</sup> of paraformaldehyde-fixed saponin-treated frozen tissue sections, immunoprecipitation <sup>3</sup> , and Western blotting <sup>3</sup> .<br><b>Note:</b> For testing mouse IL-12 p40 (monomer, dimer, heteromer) in serum or plasma, BioLegend's ELISA Max™ Sets (Cat. No. 431601 to 431606) are specially developed and recommended. |

### Application References

1. Kitagaki K, *et al.* 2002. *Clin. Diagn. Lab Immunol.* 9:1260.
2. Reichmann G, *et al.* 1999. *J. Immunol.* 163:3354.
3. Wysocka M, *et al.* 1995. *Eur. J. Immunol.* 25:672.
4. Gately M. 1995. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.16.
5. Macatonia S, *et al.* 1995. *J. Immunol.* 154:5071.
6. O'Connell PJ, *et al.* 2006. *Blood* 107:1010.
7. Akilov OE, *et al.* 2007. *J. Leukocyte Biol.* 2007;10.1189/jlb.0706439.

8. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113.
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11. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
12. Malu DT, *et al.* 2011. *J. Immunol.* 186:6271. [PubMed](#)

#### Product Citations

1. Thwe PM *et al.* 2017. *Cell metabolism.* 26(3):558-567 . [PubMed](#)
2. Sharma S, *et al.* 2015. *J Immunol.* 194:5529. [PubMed](#)
3. Ma J, *et al.* 2021. *Curr Protoc.* 1:e144. [PubMed](#)
4. Mao FY, *et al.* 2021. *Cell Mol Gastroenterol Hepatol.* 12:395. [PubMed](#)
5. Zhang J, *et al.* 2018. *Sci Rep.* 8:2373. [PubMed](#)

#### RRID

AB\_315369 (BioLegend Cat. No. 505205)  
 AB\_315370 (BioLegend Cat. No. 505206)

## 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 $\gamma$ 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   |
| <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. <i>The Cytokine FactsBook.</i> 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. Leukocyte 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="#">16160</a>   |

## Related Protocols

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[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

## Other Formats

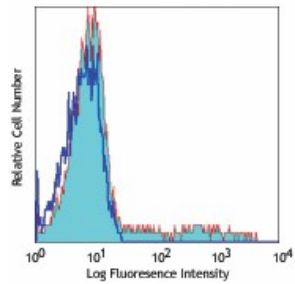
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APC anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer), PE anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer), Purified anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer), PE/Cyanine7 anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer), PerCP/Cyanine5.5 anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer), Alexa Fluor® 700 anti-mouse IL-12/IL-23 p40, APC/Fire™ 750 anti-mouse IL-12/IL-23 p40, PE/Dazzle™ 594 anti-mouse IL-12/IL-23 p40

## Product Data

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IFN- $\gamma$  primed murine peritoneal macrophages stimulated with LPS for 6 hours, then stained with C15.6 APC



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