

PE/Cyanine7 anti-mouse IL-12/IL-23 p40 (monomer, dimer, heterodimer) Antibody

Catalog# / Size	505209 / 25 µg 505210 / 100 µg
Clone	C15.6
Regulatory Status	RUO
Other Names	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)
Isotype	Rat IgG1, κ
Description	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

Verified Reactivity	Mouse, IL-12/IL-23 p40 subunit (monomer, homodimer and heterodimer IL-12 p35/p40 or IL-23 p19/p40)
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	CHO-expressed, recombinant mouse IL-12 p70
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	ELISA or ELISPOT Capture ^{1,2,4,6,8,10} ; 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. Additional reported applications (for the relevant formats) include: immunohistochemical staining ⁹ of paraformaldehyde-fixed saponin-treated frozen tissue sections, immunoprecipitation ³ , and Western blotting ³ . Note: 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.
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	1. Kitagaki K, <i>et al.</i> 2002. <i>Clin. Diagn. Lab Immunol.</i> 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.
9. Huang LY, *et al.* 2001. *J. Immunol.* 167:1423.
10. Xu G, *et al.* 2007. *J. Immunol.* 179:5358. [PubMed](#)
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. Jones N, *et al.* 2021. *Nat Commun.* 12:1209. [PubMed](#)
2. Han C, *et al.* 2021. *Cell Reports.* 34(6):108706. [PubMed](#)
3. Li J, *et al.* 2018. *Immunity.* 49:178. [PubMed](#)
4. Seenappa LM, *et al.* 2022. *NPJ Vaccines.* 7:128. [PubMed](#)

RRID

AB_2565644 (BioLegend Cat. No. 505209)
 AB_2565645 (BioLegend Cat. No. 505210)

Antigen Details

Structure	Cytokine; monomer, heterodimer (p40:p35 or p40:p19) or homodimer (p40:p40)
Bioactivity	IL-12 p70 (p40:p35) induces IFN- γ , TNF- α production in T and NK cells; costimulation of PBL proliferation; proliferation/differentiation of T β 1 T lymphocytes. IL-23 (p40:p19) induces proliferation and production of IFN- γ by human me
Cell Sources	Dendritic cells, monocytes/macrophages, B cells, T cells
Cell Targets	T cells, NK cells
Receptors	IL-12R β 1 binds p40; dimeric with IL-12R β 2 binds p35
Biology Area	Immunology, Innate Immunity
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press, San Diego. 2. Quesniaux V. 1992. <i>Research Immunol.</i> 143:385. 3. Trinchieri G, <i>et al.</i> 1992 <i>Prog. Growth Factor Res.</i> 4:355. 4. Trinchieri G, <i>et al.</i> 1993 <i>Immunol. Today.</i> 14:335. 5. Oppmann B, <i>et al.</i> 2000 <i>Immunity.</i> 13:715. 6. Aggarwal S, <i>et al.</i> 2003 <i>J. Biol. Chem.</i> 278:1910. 7. Parham C, <i>et al.</i> 2002 <i>J. Immunol.</i> 168:5699. 8. Belladonna ML, <i>et al.</i> 2002 <i>J. Immunol.</i> 168:5448. 9. Lankford, CS, <i>et al.</i> 2003 <i>J. Leukocyte Biol.</i> 73:49.
Regulation	Downregulated by IL-10; homodimeric p40 antagonistic to functional p70 heterodimer; p40 monomer has no function; p40 subunit in common with IL-23
Gene ID	16160

Related Protocols

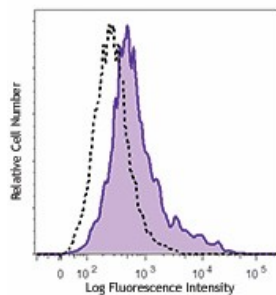
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

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



IFN γ -stimulated (2 hours) Balb/c macrophages in the presence of LPS and monensin (24 hours) were fixed, permeabilized, and intracellularly stained with IL-12/IL-23 p40 (clone C15.6) PE/Cyanine7 (filled histogram) or rat IgG1, κ PE/Cyanine7 (open histogram).

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587