

## Technical Data Sheet

## Purified Mouse Anti-Human IL-12 (p40)

## Product Information

<b>Material Number:</b>	<b>551227</b>
<b>Size:</b>	1.0 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Clone:</b>	C8.3
<b>Immunogen:</b>	Purified human IL-12 p40 subunit
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing ≤0.09% sodium azide.

## Description

The C8.3 antibody reacts with human IL-12 p40 subunit but not IL-12 p70 heterodimer or IL-12 p35 monomer. The immunogen used to generate the C8.3 hybridoma was the purified p40 subunit of human IL-12. The C8.3 antibody has been reported not to bind p40 chain when it is complexed to p35 (i.e., the p70 heterodimer). The combination of anti-p40 antibodies, C8.3 and C8.6, has been reported to yield an assay for detecting only free p40 chain, and specifically not the p70 heterodimer. It has been reported that activated PBMC produce an excess of the free p40 protein over the p70 heterodimer.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4° C.

## Application Notes

## Application

ELISA Capture	Routinely Tested
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## Recommended Assay Procedure:

**ELISA Capture:** The purified C8.3 antibody (Cat. No. 551227) is useful as a capture antibody for a sandwich ELISA for specifically measuring human IL-12 p40 protein levels, without interference by IL-12 p70 protein. Purified C8.3 antibody can be paired with the biotinylated C8.6 (Cat. No. 554660) antibody as the detecting antibody, with recombinant human IL-12 p40 monomer (Cat. No. 554633) as the standard. Purified C8.3 antibody should be titrated 4 - 8 µg/ml to determine optimal concentration for ELISA capture. To obtain linear standard curves, doubling dilutions of human C8.3 ranging from ~10,000 to 80 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our web site, [www.bdbiosciences.com](http://www.bdbiosciences.com), and go to the protocols section or the chapter on ELISA in the Immune Function Handbook.

**Note 1:** This ELISA pair shows no cross-reactivity with any of the cytokines tested (e.g., mouse IL-1β, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-12 p40, IL-15, IFN-γ, MCP-1, TCA-3, TNF; human IL-1α, IL-1β, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12 p70, IL-13, IL-15, G-CSF, GM-CSF, IFN-γ, lymphotactin, MCP-1, MCP-2, MIP-1α, MIP-1β, NT-3, PDGF-AA, sCD23, SCF, TNF, LT-α, VEGF; rat IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN-γ, TNF).

**Note 2:** This assay is specific for measuring human IL-12 p40 protein, with minimal interference by IL-12 p70 protein. IL-12 p70 protein at 10 ng/ml run in this IL-12 p40 ELISA was found to yield < 0.1% the signal produced by 10 ng/ml IL-12 p40 protein.

**Note 3:** This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for assay of serum or plasma samples. For measuring human IL-12 (p40) in serum or plasma our human IL-12 (p40) BD OptEIA™ Set (Cat. No. 555171) or BD OptEIA Kit (Cat. No. 551116) are specially formulated and recommended.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
554660	Biotin Mouse Anti-Human IL-12 (p40/p70)	0.5 mg	C8.6
554633	Recombinant Human IL-12 p40	5 µg	(none)
555171	BD OptEIA™ Human IL-12 (p40) ELISA Set	20 plates	(none)
551116	BD OptEIA™ Human IL-12 (p40) ELISA Kit II	2 plates	(none)

## BD Biosciences

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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References

D'Andrea A, Aste-Amezaga M, Valiante NM, Ma X, Kubin M, Trinchieri G. Interleukin 10 (IL-10) inhibits human lymphocyte interferon gamma-production by suppressing natural killer cell stimulatory factor/IL-12 synthesis in accessory cells. *J Exp Med.* 1993; 178(3):1041-1048.(Clone-specific: ELISA)  
D'Andrea A, Rengaraju M, Valiante NM, et al. Production of natural killer cell stimulatory factor (interleukin 12) by peripheral blood mononuclear cells. *J Exp Med.* 1992; 176(5):1387-1398.(Clone-specific: ELISA)