

Technical Data Sheet

Biotin Rat Anti-Mouse IFN- γ

Product Information

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|-------------------------|--|
| Material Number: | 554410 |
| Size: | 0.5 mg |
| Concentration: | 0.5 mg/ml |
| Clone: | XMG1.2 |
| Immunogen: | Mouse IFN- γ |
| Isotype: | Rat IgG1, κ |
| Reactivity: | QC Testing: Mouse |
| Storage Buffer: | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

Description

The XMG1.2 antibody reacts with mouse interferon- γ (IFN- γ) protein. IFN- γ is a pleiotropic cytokine, of approximately 15-17 kDa, involved in the regulation of the immune response. It plays an important role in activation, growth, and differentiation of T and B lymphocytes, macrophages, NK cells and other non-hematopoietic cell types. IFN- γ production is associated with the Th-1 differentiation. This is a neutralizing antibody

This antibody is routinely tested by ELISA. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

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| ELISA Detection | Routinely Tested |
|-----------------|------------------|

Recommended Assay Procedure:

ELISA Detection: The biotinylated XMG1.2 clone is useful as a detection antibody in a sandwich ELISA for measuring mouse IFN- γ protein levels. Biotinylated XMG1.2 antibody can be paired with the purified R4-6A2 antibody (Cat. No. 551216) or purified AN-18 (Cat. No. 551309) as the capture antibody, with recombinant mouse IFN- γ protein (Cat. No. 554587) as the standard. The biotinylated XMG1.2 antibody preparation should be titrated from 0.5-2.0 $\mu\text{g/ml}$ to determine its optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of IFN- γ protein ranging from ~ 4000 to 30 pg/ml are recommended for inclusion in each ELISA plate.

Note: This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. For testing IFN- γ in serum or plasma, our BD OptEIA™ Set (Cat. No. 551866) or BD OptEIA™ Kit (Cat. No. 558258) are recommended.

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|---|------------------|--------|
| 554587 | Recombinant Mouse IFN- γ Protein | 10 μg | (none) |
| 558258 | Mouse IFN- γ ELISA Kit II | 2 plates | (none) |
| 551216 | Purified Rat Anti-Mouse IFN- γ | 1.0 mg | R4-6A2 |
| 551866 | Mouse IFN- γ OptEIA Set | 20 tests | |

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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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

- Abrams JS, Roncarolo MG, Yssel H, Andersson U, Gleich GJ, Silver JE. Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. *Immunol Rev.* 1992; 127:5-24.(Clone-specific)
- Cherwinski HM, Schumacher JH, Brown KD, Mosmann TR. Two types of mouse helper T cell clone. III. Further differences in lymphokine synthesis between Th1 and Th2 clones revealed by RNA hybridization, functionally monospecific bioassays, and monoclonal antibodies. *J Exp Med.* 1987; 166(5):1229-1244. (Clone-specific)
- Sander B, Hoiden I, Andersson U, Moller E, Abrams JS. Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. *J Immunol Methods.* 1993; 166(2):201-214.(Clone-specific)