



# Rat Anti-Mouse IFN $\gamma$ Monoclonal antibody, clone XMG1.2 (CABT-L4338)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

The XMG1.2 monoclonal antibody reacts with mouse IFN $\gamma$  (interferon gamma) a 20 kDa soluble pleiotropic cytokine and the sole member of the type II class of interferons. IFN $\gamma$  is primarily produced by activated lymphocytes including T, B, NK cells, and ILCs. IFN $\gamma$  exerts immunoregulatory, anti-proliferative, anti-viral, and proinflammatory activities and plays an important role in activation, growth, and differentiation of T and B lymphocytes, macrophages, NK cells and other non-hematopoietic cell types. Additionally, IFN $\gamma$  induces the production of cytokines, Fc receptor, and adhesion molecules and up-regulates MHC class I and II antigen expression by antigen presenting cells during an immune response. IFN $\gamma$  has also been shown to modulate macrophage effector functions, influence isotype switching and induce the secretion of immunoglobulins by B cells. IFN $\gamma$  signals through the IFN gamma receptor which exists as a heterodimer composed of CD119 (IFN gamma receptor 1) and AF-1 (IFN gamma receptor 2). The IFN $\gamma$  receptor is expressed ubiquitously on almost all cell types with the exception of mature erythrocytes. The XMG1.2 antibody is a neutralizing antibody.

<b>Target</b>	Mouse IFN $\gamma$
<b>Immunogen</b>	Recombinant mouse IFN $\gamma$
<b>Isotype</b>	IgG1, $\kappa$
<b>Source/Host</b>	Rat
<b>Species Reactivity</b>	Mouse
<b>Clone</b>	XMG1.2
<b>Purification</b>	Protein G purified. Purity>95%. Determined by SDS-PAGE
<b>Conjugate</b>	Functional Grade

<b>Applications</b>	in vivo IFN $\gamma$ neutralization, in vitro IFN $\gamma$ neutralization, ELISPOT, FC, WB
<b>Molecular Weight</b>	150 kDa
<b>Format</b>	0.2 $\mu$ M filtered liquid. Purified from tissue culture supernatant in an animal free facility
<b>Concentration</b>	Lot specific
<b>Size</b>	5 mg
<b>Buffer</b>	PBS + 0.01% Tween, pH 8.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]  Endotoxin level: <1EU/mg (<0.001EU/ $\mu$ g). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB01T, CABT-LB01
<b>Preservative</b>	None
<b>Storage</b>	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	This gene encodes a member of the type II interferon family. The protein encoded is a soluble cytokine with antiviral, immunoregulatory and anti-tumor properties and is a potent activator of macrophages. Mutations in this gene are associated with aplastic anemia.
<b>Keywords</b>	IFNG;interferon, gamma;IFG;IFI;interferon gamma;IFN-gamma;immune interferon

## GENE INFORMATION

<b>Official Symbol</b>	interferon, gamma
<b>Synonyms</b>	IFNG; interferon, gamma; IFG; IFI; interferon gamma; IFN-gamma; immune interferon
<b>References</b>	Glasner, A., et al. (2018). "NKp46 Receptor-Mediated Interferon-gamma Production by Natural Killer Cells Increases Fibronectin 1 to Alter Tumor Architecture and Control Metastasis." Immunity 48(1): 107-119 e104. PubMed;Deng, L., et al. (2014). "Irradiation and anti-PD-L1 treatment synergistically promote antitumor immunity in mice." J Clin Invest 124(2): 687-695. PubMed;Rabenstein, H., et al. (2014). "Differential kinetics of antigen dependency of CD4+ and CD8+ T cells." J Immunol 192(8): 3507-3517. PubMed;Uddin, M. N., et al. (2014). "TNF-alpha-dependent hematopoiesis following Bcl11b deletion in T cells restricts metastatic melanoma." J Immunol 192(4): 1946-1953. PubMed;Kugler, D. G., et al. (2013). "CD4+ T cells are trigger and

target of the glucocorticoid response that prevents lethal immunopathology in toxoplasma infection." J Exp Med 210(10): 1919-1927. PubMed

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