



Rat anti Bovine IFNG monoclonal antibody, clone 456112 (CABT-L111)

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

PRODUCT INFORMATION

Specificity	Detects bovine IFN-gamma in ELISAs. In sandwich immunoassays, no cross-reactivity with recombinant IFN-gamma from human, mouse or porcine is observed.
Target	IFN-gamma
Immunogen	E. coli-derived recombinant bovine IFN-gamma, Gln24-Thr166, Accession #NP 776511
Isotype	IgG2A
Source/Host	Rat
Species Reactivity	Bovine
Clone	456112
Purification	Protein A or G purified from hybridoma culture supernatant
Conjugate	Unconjugated
Applications	ELISA(Cap)
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Format	Lyophilized; Small package size(SP): Liquid
Size	25 µg, 500 µg
Buffer	PBS with Trehalose
Preservative	None

Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.
Ship	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

BACKGROUND

Introduction	Interferon-gamma (IFN-gamma), also known as type II or immune interferon, exerts a wide range of immunoregulatory activities and is considered to be the prototype proinflammatory cytokine. Mature bovine IFN-gamma exists as a noncovalently linked homodimer of 20-25 kDa variably glycosylated subunits. It shares 78%-80% amino acid (aa) sequence identity with canine, feline, equine, and porcine IFN-gamma and 42%-59% with cotton rat, human, mouse, rat, and rhesus IFN-gamma. IFN-gamma dimers bind to IFN-gamma RI (alpha subunits) which then interact with IFN-gamma RII (beta subunits) to form the functional receptor complex of two alpha and two beta subunits. Inclusion of IFN-gamma RII increases the binding affinity for ligand and the efficiency of signal transduction. IFN-gamma is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK cells. It plays a key role in host defense by promoting the development and activation of Th1 cells, chemoattraction and activation of monocytes and macrophages, up-regulation of antigen presentation molecules, and immunoglobulin class switching in B cells. It also exhibits antiviral, antiproliferative, and apoptotic effects. In addition, IFN-gamma functions as an anti-inflammatory mediator by promoting the development of regulatory T cells and inhibiting Th17 cell differentiation. The pleiotropic effects of IFN-gamma contribute to the development of multiple aspects of atherosclerosis.
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Keywords	IFG;IFI;IFNG;IFNgamma;IFN-gamma;Immune interferon;interferon gamma;interferon; gamma
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GENE INFORMATION

Entrez Gene ID	281237
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UniProt ID	P07353
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