Feline IFN-γ Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF764

DESCRIPTION

Species Reactivity	Feline
Specificity	Detects feline IFN-γ in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with human, mouse, rat, and porcine IFN-γ is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant feline IFN-γ Gln24-Lys167 Accession # P46402
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

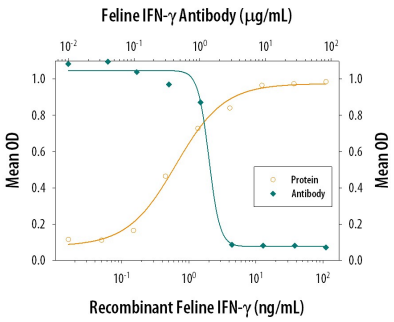
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Feline IFN-γ (Catalog # 764-FG)
Neutralization	Measured by its ability to neutralize IFN−γ inhibition of VSV-induced cytopathy in the CRFK feline kidney epithelial cell line. The Neutralization Dose (ND_{50}) is typically 1-3 µg/mL in the presence of 5 ng/mL Recombinant Feline IFN−γ.	

DATA

Neutralization



IFN-γ Inhibition of VSV-induced Cytopathy and Neutralization by Feline IFN-γ Antibody.
Recombinant Feline IFN-γ (Catalog # 764-FG) reduces the Vesicular Stomatitis Virus (VSV)-induced cytopathy in the CRFK feline kidney epithelial cell line in a dose-dependent manner (orange line). Inhibition of VSV activity elicited by Recombinant Feline IFN-γ (5 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Feline IFN-γ Antigen Affinity-purified Polyclonal Antibody (Catalog # AF764). The ND_{50} is typically 1-3 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & 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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

Feline IFN-γ Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF764

BACKGROUND

Interferon-gamma (IFN-γ), also known as type II or immune interferon, exerts a wide range of immunoregulatory activities and is considered to be the prototype proinflammatory cytokine (1, 2). Mature feline IFN-γ exists as a noncovalently linked homodimer of 20 25 kDa variably glycosylated subunits (3, 4). It shares 88% amino acid sequence identity with canine IFN-γ, 72%-78% with bovine, equine, and porcine IFN-γ, and 40%-62% with cotton rat, human, mouse, rat, and rhesus IFN-γ. IFN-γ dimers bind to IFN-γ RI (alpha subunits) which then interact with IFN-γ RII (beta subunits) to form the functional receptor complex of two α and two β subunits. Inclusion of IFN-γ RII increases the binding affinity for ligand and the efficiency of signal transduction (5, 6). IFN-γ is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK cells (7). It plays a key role in host defense by promoting the development and activation of Th1 cells, chemoattraction and activation of monocytes and macrophages, upregulation of antigen presentation molecules, and immunoglobulin class switching in B cells. It also exhibits antiviral, antiproliferative, and apoptotic effects (7, 8). In addition, IFN-γ functions as an anti-inflammatory mediator by promoting the development of regulatory T cells and inhibiting Th17 cell differentiation (9, 10). The pleiotropic effects of IFN-γ contribute to the development of multiple aspects of atherosclerosis (8).

References:

1. Billiau, A. and P. Matthys (2009) Cytokine Growth Factor Rev. **20**:97.
2. Pestka, S. *et al.* (2004) Immunol. Rev. **202**:8.
3. Argyle, D.J. *et al.* (1995) DNA Seq. **5**:169.
4. Schijns, V.E. *et al.* (1995) Immunogenetics **42**:440.
5. Marsters, S.A. *et al.* (1995) Proc. Natl. Acad. Sci. **92**:5401.
6. Krause, C.D. *et al.* (2000) J. Biol. Chem. **275**:22995.
7. Schroder, K. *et al.* (2004) J. Leukoc. Biol. **75**:163.
8. McLaren, J.E. and D.P. Ramji (2009) Cytokine Growth Factor Rev. **20**:125.
9. Muhl, H. and J. Pfeilschifter (2003) Int. Immunopharmacol. **3**:1247.
10. Kelchtermans, H. *et al.* (2008) Trends Immunol. **29**:479.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956