Cotton Rat IFN-α Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF1082

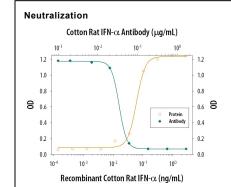
DESCRIPTION			
Species Reactivity	ty Cotton Rat		
Specificity	Detects cotton rat IFN-α in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 2% cross-reactivity with recombinant human IFN-β and recombinant cotton rat IFN-γ is observed.		
Source	Polyclonal Goat IgG		
Purification	Antigen Affinity-purified		
Immunogen	E. coli-derived recombinant cotton rat IFN-α Cys24-Lys190 (Cys109Tyr) Accession # AAL18816		
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 Cotton Rat IFN-α (Cys109Tyr) (Catalog # 1082-CR)
Neutralization	fibrosarcoma cell line	ity to neutralize IFN-α inhibition of EMCV-induced cytopathy in the LCRT cotton rat e. Vogel, S. and M. Hogan (1995) in Current Protocols in Immunology. Ciocio, R. (ed); John . 6. 9. 1. The Neutralization Dose (ND ₅₀) is typically 0.015-0.065 μg/mL in the presence of
	0.2 ng/mL Recombir	nant Cotton Rat IFN-α (Cys109Tyr).

ΠΔΤΔ



induced Cytopathy and Neutralization by Cotton Rat IFN-α Antibody. Recombinant Cotton Rat IFN-α (Cys109Tyr) (Catalog # 1082-CR) reduces the Encephalomyocarditis Virus (EMCV)-induced cytopathy in the LCRT cotton rat fibrosarcoma cell line in a dose-dependent manner (orange line), as measured by crystal violet staining. Inhibition of

IFN-α Inhibition of EMCV-

(orange line), as measured by crystal violet staining. Inhibition of EMCV activity elicited by Recombinant Cotton Rat IFN- α (Cys109Tyr) (0.2 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Cotton Rat IFN- α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1082). The ND $_{50}$ is typically 0.015-0.065 μ g/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.





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BACKGROUND

Interferon- α , also known as leukocyte interferon, comprises a group of related but distinct proteins that share over 95% amino acid sequence homology. They are members of the type I interferon family which share a common cell surface receptor composed of two subunits, a 100 kDa ligand-binding subunit (IFN- α R1) and a 125 kDa subunit (IFN- α R2) that is involved both in ligand-binding and signal transduction. IFN- α is expressed primarily by leukocytes upon activation by viruses, bacteria, cytokines and growth factors. IFN- α has been shown to have anti-viral and immunomodulatory activities on target cells. It can also inhibit cell proliferation as well as induce apoptosis (1, 2).

Cotton rat IFN- α 1 cDNA encodes a 189 amino acid (aa) residue precursor protein with a putative 23 aa signal sequence and a 166 aa mature protein. The protein contains five cysteines, four of which are involved in two intrachain disulfide bonds. Cotton rat IFN- α 1 shares 52%, 67%, 68% and 72% aa sequence identity to human, rat, hamster and mouse IFN- α 1, respectively.

References:

- 1. Domanski, P. and O.R. Colamonici (1996) Cytokine Growth Factor Rev. 7:143.
- 2. Pestka, S. (2000) Biopolymers 55:254.



Rev. 3/13/2015 Page 2 of 2