

DESCRIPTION

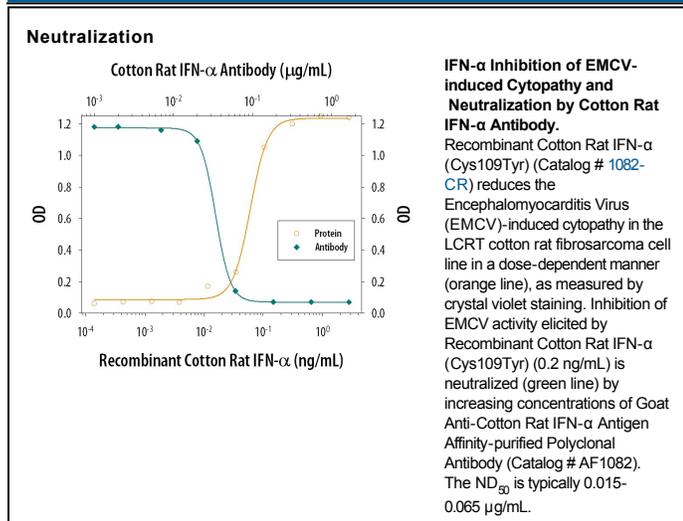
Species Reactivity	Cotton Rat
Specificity	Detects cotton rat IFN- α in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 2% cross-reactivity with recombinant human IFN- β and recombinant cotton rat IFN- γ is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant cotton rat IFN- α Cys24-Lys190 (Cys109Tyr) Accession # AAL18816
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m 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 μ g/mL	Recombinant Cotton Rat IFN- α (Cys109Tyr) (Catalog # 1082-CR)
Neutralization		Measured by its ability to neutralize IFN- α inhibition of EMCV-induced cytopathy in the LCRT cotton rat fibrosarcoma cell line. Vogel, S. and M. Hogan (1995) in <i>Current Protocols in Immunology</i> . Ciocio, R. (ed); John Wiley & Sons, Inc. p. 6. 9. 1. The Neutralization Dose (ND ₅₀) is typically 0.015-0.065 μ g/mL in the presence of 0.2 ng/mL Recombinant Cotton Rat IFN- α (Cys109Tyr).

DATA



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. <ul style="list-style-type: none"> ● 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.

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.