Polyclonal Anti-Human Fibroblast Interferon Beta (antiserum, Sheep)

Catalog No. NR-3091
This reagent is the property of the U.S. Government.

Lot (NIAID Catalog) No. G028-501-568
For research use only. Not for human use.

Contributor:
National Institutes of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH)

Product Description:
Reagent: Polyclonal antiserum to human fibroblast interferon beta
Host: Suffolk-Hampshire female yearling sheep
Immunizing Antigen:
Human fibroblast interferon prepared in diploid cell strains induced with poly (I) poly (C) and purified to a specific activity of 1 x 10^6 units per mg protein
NIAID Class: Research Reference Reagent
Research Reference Reagent Note (attached): No. 24
Adjuvant used: Freund’s complete in booster inoculations

Material Provided/Storage:
Composition: Lyophilized
Original Volume: 0.5 mL
Storage Temperature: 4°C or colder
Reconstitution: 0.5 mL sterile distilled water

Functional Activity:
Neutralizing Titer: 1:12,000 against 8 to 10 Laboratory Units of human interferon beta

Purity:
Sterility: No evidence of bacterial or fungal contamination

Producer and Contract:
Medical College of Pennsylvania N01-AI-82568

Citation:
Acknowledgment for publications should read “The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Polyclonal Anti-Human Fibroblast Interferon Beta (antiserum, Sheep), NR-3091.”

Biosafety Level: 1


Disclaimers:
You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government make any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:
This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:


ATCC® is a trademark of the American Type Culture Collection.
RESEARCH REFERENCE REAGENT NOTE # 24
SHEEP ANTISERUM TO HUMAN FIBROBLAST INTERFERON
CATALOG NUMBER G-028-501-568

Research Resources Branch
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Bethesda, Maryland 20205

March, 1981
Preparation

Antibodies to human fibroblast interferon were produced in a Suffolk-Hampshire female yearling sheep based on the procedure of Mogensen, et al. (1). The sheep received twelve weekly injections of 1.2 x 10^7 units per injection of human fibroblast interferon, prepared in diploid cell strains induced with poly I:C, and purified to a specific activity of 1 x 10^6 units per mg protein (2). The interferon was obtained from the Rega Institute, Leuven, Belgium. Six weeks after the twelfth injection, a booster inoculation of 2.5 x 10^7 units of the same human fibroblast interferon was admixed with Freund's Complete Adjuvant and injected into several intramuscular sites. Bleedings were begun seven days later. Other booster injections, followed by bleedings and six week rest periods were carried out until maximum antibody titers were achieved. Sera of maximum titer obtained from this animal, were used for preparing this reference standard.

Greater than 95 percent of the antibodies to known contaminants present in the interferon preparation used for immunization were removed by immunoabsorption techniques utilizing antigens bound to Sepharose 4B. The antigens were those components of an interferon preparation which did not bind to a Controlled Pore Glass column (3), supplemented with bovine albumin, human plasma protein and soluble extract prepared from diploid human fibroblasts. The globulin portion of the serum was separated by precipitation with 50 percent ammonium sulfate, dialyzed versus 0.01 M sodium phosphate buffer pH 7, then sterilized by filtration. The globulin was dispensed (0.5 ml per ampule), freeze-dried and sealed by The American Type Culture Collection.

Recommendations for Reconstitution

Add 0.5 ml of sterile physiologic saline solution or an appropriate medium to the lyophilized powder. Precautions should be taken to avoid loss of material in the neck or stem of the ampule. The reconstituted globulin can be diluted and stored indefinitely at -20°C or lower.

Interferon Neutralization Assay

The assay procedure used at The Medical College of Pennsylvania is similar to the interferon assay in microtiter plates (4,5), except that 50 µl volumes of serial two-fold dilutions of antiserum are preincubated for 1 hr at 37°C with 50 µl of graded interferon dilutions covering the range from 1-32 units before addition of the 30,000 human FS-4 cells per well. Encephalomyocarditis virus at a multiplicity of 0.2 was used for challenge. Interferon, virus and cell controls are included in each test. The antiserum is titrated against several dilutions of test antigens in order to select, for computation of the titer, the series with the appropriate number of interferon units available for neutralization by antibody. The highest dilution which neutralized 8-10 reference units of interferon by partially restoring viral cytopathic effect, corrected for 1 ml volume, represented the titer of the antiserum. The human fibroblast interferon reference standard used was G-023-902-527.

(3)
Reagent Control

A control globulin preparation for this antibody to human fibroblast interferon is also available (G-029-501-568).

Prepared by: Kurt Paucker, Barbara Dalton and Clifton A. Ogburn
The Medical College of Pennsylvania
Philadelphia, Pennsylvania 19129
Contract No. 1 AI 82568

References