Active Interferon Gamma (IFNg) Instruction Manual

SBPA030Gu01

Cavia (Guinea pig)

Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Traits	Freeze-dried powder
Purity	> 90%
Isoelectric Point	9.7
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

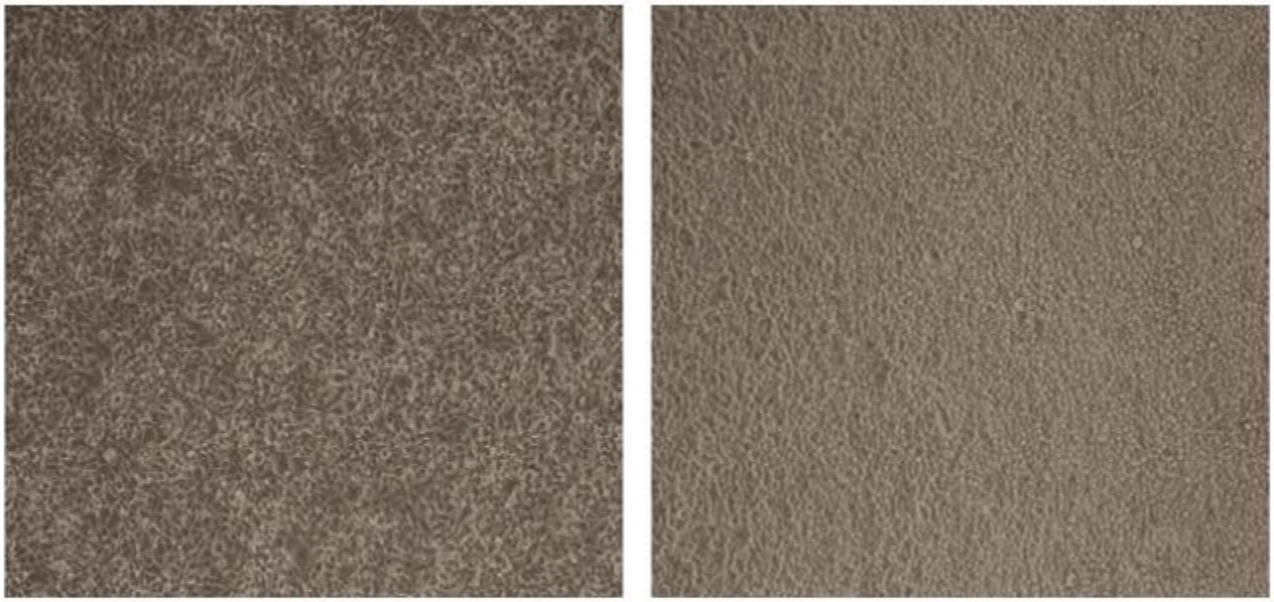


Figure 1. Morphological change of Raw 264.7cells after stimulation of IFNg.

(A) Raw 264.7 cells cultured in DMEM, stimulated with IFNg;

(B) Unstimulated Raw 264.7 cells cultured in DMEM (negative control).

Interferon gamma (IFNγ) is a dimerized soluble cytokine that is the only member of the type II class of interferons. The importance of IFNγ in the immune system stems in part from its ability to inhibit viral replication directly, and most importantly from its immunostimulatory and immunomodulatory effects. It has been reported that IFN-γ promotes production of inducible Nitric Oxide Synthase (iNOS) in macrophages as an important activator. After stimulated with IFN-γ, morphological changes will occur in murine macrophage cell line (Raw 264.7 cells), and inducible nitric-oxide synthase (iNOS) in the cells will increase. Raw 264.7 cells were incubated in DMEM with IFN-γ (10ng/mL) for 24h, then cells were observed by inverted microscope and iNOS in cell lysates was detected by ELISA.
Effect of IFN-γ on morphological change of Raw 246.7 cells was shown in Figure 1.

Table 1. ELISA detection of iNOS expression from RAW 246.7 cells stimulated by IFNg.

Sample (cell lysates of Raw 264.7 cells)	O.D. value	Corrected	Concentration of iNOS (ng/mL)
stimulated with IFN-γ (10ng/mL)	2.81	2.69	36.92
unstimulated	0.25	0.19	2.88

Effect of IFN-γ on the expression of iNOS was shown in Table 1.

USAGE

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

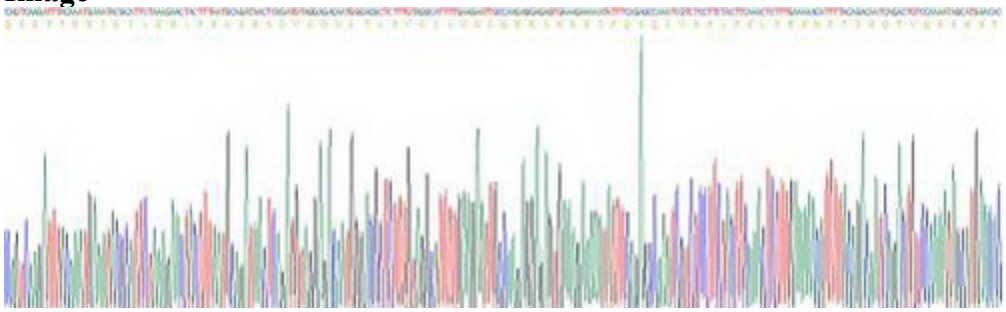
Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no

obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image



SDS-PAGE Image

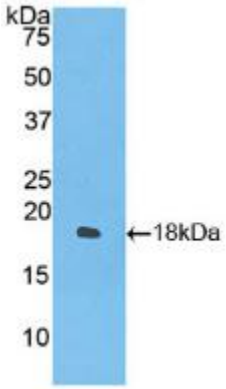


Figure. Western Blot; Sample: Recombinant IFNg, Cavia.

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.