

# Active Tumor Necrosis Factor Alpha (TNF $\alpha$ ) Instruction Manual

## SBPA083Mu01

### Mus musculus (Mouse)

#### Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

#### Traits

Freeze-dried powder

#### Purity

> 95%

#### Isoelectric Point

5.0

#### Applications

Cell culture; Activity Assays.

### ACTIVITY TEST

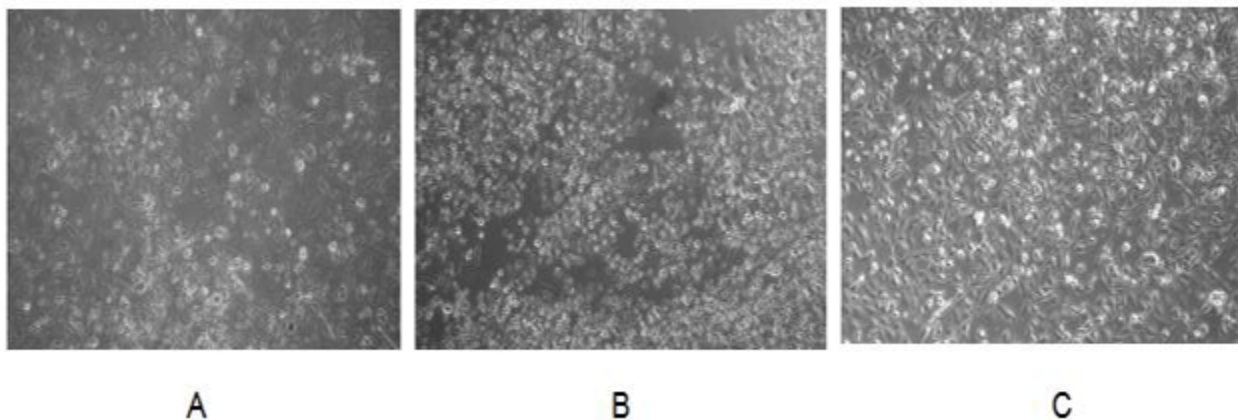


Figure 1. Cell apoptosis of A549 cells after stimulated by TNF $\alpha$ . TNF $\alpha$ , being an endogenous pyrogen, is able to induce fever, apoptotic cell death, inflammation and inhibit tumorigenesis. As reported, TNF $\alpha$  could inhibit the proliferation and induce apoptosis of A549 cells, and the concentration of IL-1 $\beta$  in cell supernatant will increase after stimulation. A549 cells were incubated in DMEM with TNF $\alpha$  (1ng/mL, 10ng/mL) for 2h, 4h, 8h, 24h, 48h, then cells were observed by inverted microscope and IL-1 $\beta$  in cell supernatant was detected by ELISA. Cell apoptosis of A549 after incubation of 48h was shown in Figure 1. (A) A549 cells cultured in DMEM, stimulated with 1ng/mL TNF $\alpha$  for 48h; (B) A549 cells cultured in DMEM, stimulated with 10ng/mL TNF $\alpha$  for 48h; (C) A549 cells cultured in DMEM for 48h.

<b>Sample (cell supernatant of A549 cells)</b>	<b>Concentration of IL-1<math>\beta</math> (ng/mL)</b>
Stimulated with TNF $\alpha$ (1ng/mL)	9.304
Stimulated with TNF $\alpha$ (10ng/mL)	29.064
Unstimulated	1.344

Table 1. ELISA detection of IL-1 $\beta$  expression from A549 cells by TNF $\alpha$ . Effect of TNF $\alpha$  on the expression of IL-1 $\beta$  is shown in Table 1.

### **USAGE**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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**

