

Active Interleukin 1 Beta (IL1b) Instruction Manual

SBPA147Mu61

Mus musculus (Mouse)

Buffer Formulation	PBS, pH7.4, containing 5% Trehalose.
Traits	Freeze-dried powder
Purity	> 97%
Isoelectric Point	8.4
Applications	Cell culture; Activity Assays.

ACTIVITY TEST



IL-1 β (Interleukin-1 beta) is a proinflammatory and immunoregulatory cytokine involved in a variety of cellular activities. It has been elucidated that IL-1 β stimulation of cells activates MMP-9 (matrix metalloproteinases-9) secretion by the activation of the dual signalling pathways. Thus, a stimulation assay of IL-1 β was conducted using 3T3 cell line, and the MMP-9 activity was detected through gel zymography. Briefly, 1 \times 10⁶ 3T3 cells were cultured overnight in 5%DMEM, washed with serum-free medium and then stimulated with different concentrations of IL-1 β for 20h, and cell lysates were collected to measure MMP-9 activity. Cell lysates samples were denatured by SDS loading buffer, electrophoresed through sodium dodecyl sulphate–polyacrylamide gel (SDS–PAGE; 10% gels) containing gelatin (1mg/mL) with nonreducing conditions. After renaturation, incubation and coomassiebrilliant blue (CBB)-stained, MMPs hydrolyzed gelatin nearby, indicated by the white binds on the gel.

Result: Increased MMP-9 activity in 3T3 cells due to the stimulation of IL-1 β was shown in Figure 1.

Figure. Activation of MMP-9 by IL-1 β .

USAGE

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

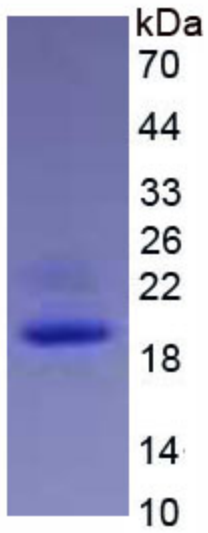


Figure. SDS-PAGE

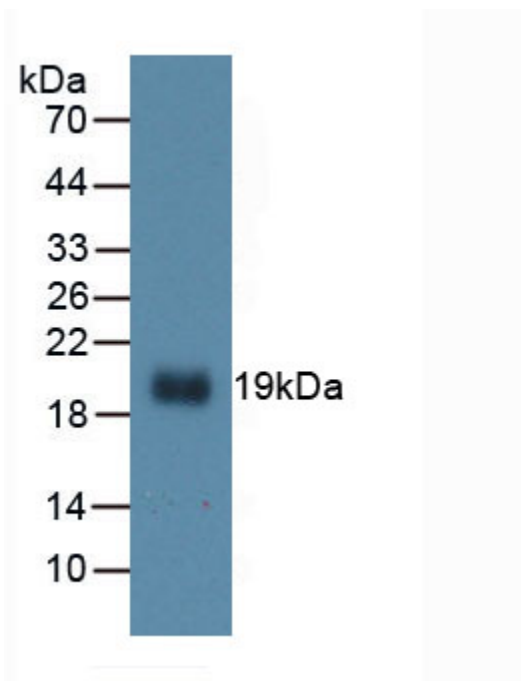


Figure. Western Blot

[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.

