

Active Asporin (ASPEN) Instruction Manual

SBPC301Mu01

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%

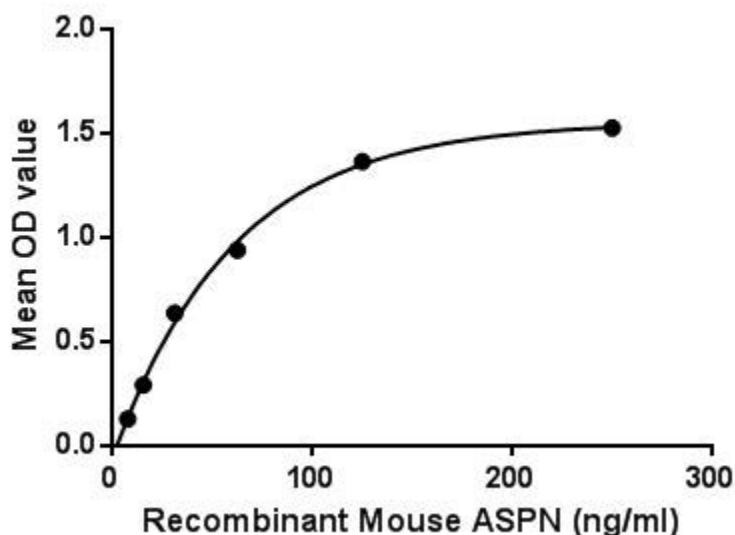
Isoelectric Point

8.8

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



Asporin (ASPEN) is a protein belongs to a family of leucine-rich repeat (LRR) proteins associated with the cartilage matrix. The protein negatively regulates chondrogenesis in the articular cartilage and periodontal ligament (PDL) differentiation, inhibits BMP2-induced cytodifferentiation of PDL cells and also inhibits the interaction between TGFβ1 and TGF-beta receptor type II in the presence of heparin/heparan sulfate in vitro. Besides, Transforming Growth Factor Beta 2 (TGFβ2) has been identified as an interactor of ASPEN, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse ASPEN and recombinant mouse TGFβ2. Briefly, ASPEN were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to TGFβ2-coated microtiter wells and incubated for 2h at 37°C. Wells were

washed with PBST and incubated for 1h with anti-ASPEN pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of ASPEN and TGFb2 was shown in Figure 1, and this effect was in a dose dependent manner.
Figure. The binding activity of ASPEN with TGFb2.

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

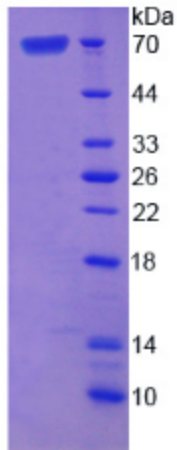


Figure. SDS-PAGE

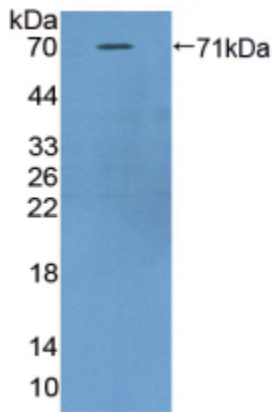


Figure. Western Blot

[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.