

Active Gremlin 1 (GREM1) Instruction Manual

SBPC080Hu01

Homo sapiens (Human)

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

> 97%

Isoelectric Point

9.0

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

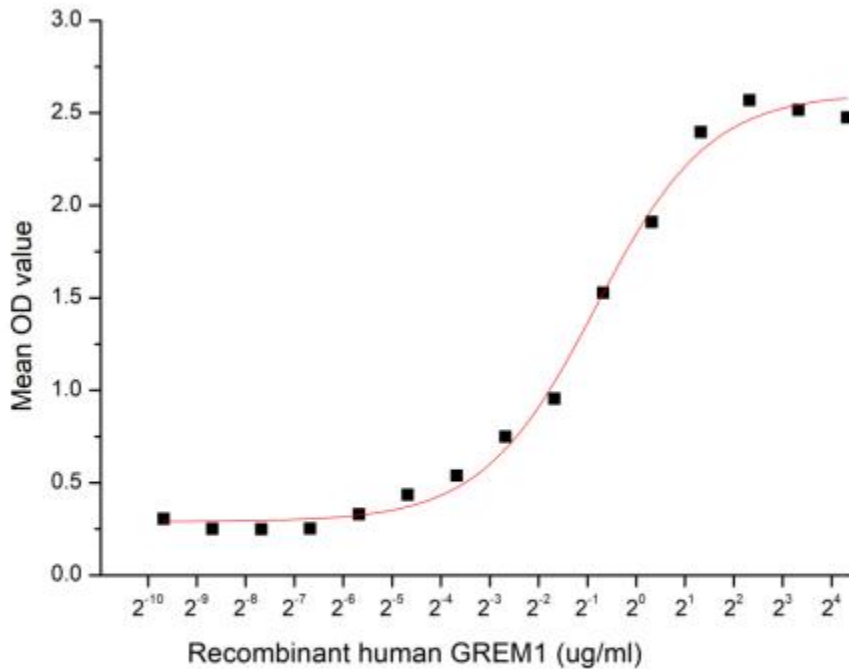


Figure 1. The binding activity of GREM1 with BMP2

Gremlin 1 (GREM1) is an inhibitor in the TGF-beta signaling pathway. The protein expression is found in many cancers and is thought to play important roles in uterine

cervix, lung, ovary, kidney, breast, colon, pancreas, and sarcoma carcinomas. GREM1 and other BMP antagonists are important in the survival of cancer stroma survival and proliferation in some cancers. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GREM1 and BMP2. Briefly, GREM1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to BMP2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-GREM1 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 50 μ L stop solution to the wells and read at 450nm immediately. The binding activity of recombinant human GREM1 and recombinant human BMP2 was shown in Figure 1, the EC50 for this effect is 0.562 ug/mL.

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

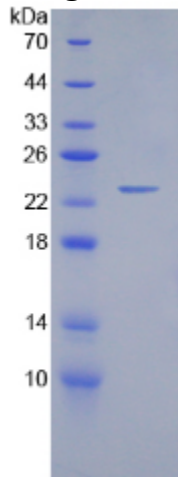


Figure. SDS-PAGE

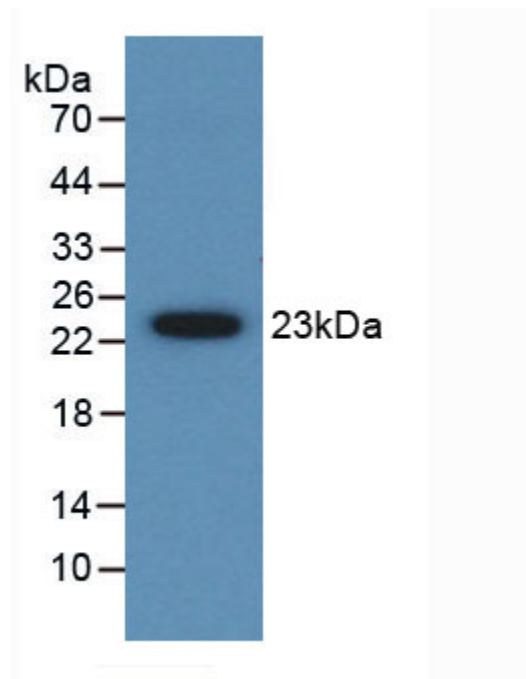


Figure. Western Blot

[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.