Biomatik
Tel: (519) 489-7195, (800) 836-8089
Fax: (519) 231-0140, (877) 221-3515
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RPU54876 100µg

Active Transforming Growth Factor Beta 1 (TGFb1)

Organism Species: Homo sapiens (Human)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition

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[PROPERTIES]

Source: Prokaryotic expression

Host: *E.coli*

Residues: Ala279~Ser390

Tags: N-terminal His Tag

Purity: >98%

Buffer formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

Applications: Cell culture; Activity Assays; In vivo assays.
(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 8.4

Predicted Molecular Mass: 14.1kDa

Accurate Molecular Mass: 15kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8ºC for one month.

Aliquot and store at -80ºC for 12 months.

Stability Test: 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.

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[SEQUENCE]

AL DTNYCFSSTE KNCCVRQLYI
DFRKDLGWKW IHEPKGYHAN FCLGPCPYIW SLDTQYSKVL ALYNQHNPGA
SAAPCCVPQA LEPLPIVYYV GRKPKVEQLS NMIVRSCKCS

[ACTIVITY]

TGF-β1 (Transforming growth factor beta 1) is a multifunctional set of peptides that controls proliferation, differentiation, and other functions in many cell types. TGF beta 1 has been shown to interact with TGF beta receptor 1, Decorin, LTBP1 and so on. Thus we have conducted a binding ELISA assay to detect the interaction of recombinant human TGF-β1 with recombinant human LTBP1. Briefly, TGF-β1 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to LTBP1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-LTBP1 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 TGF-β1 with LTBP1 was shown in Figure 1 and this effect was in a dose dependent manner.

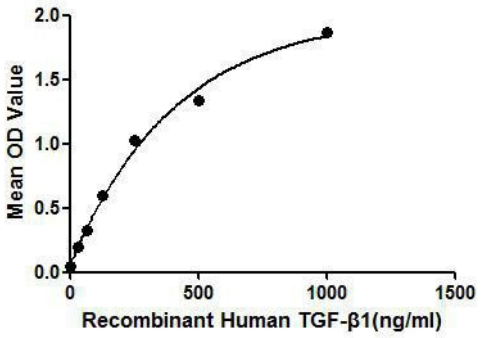

Figure 1. The binding activity of TGF-β1 with LTBP1.

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[IDENTIFICATION]

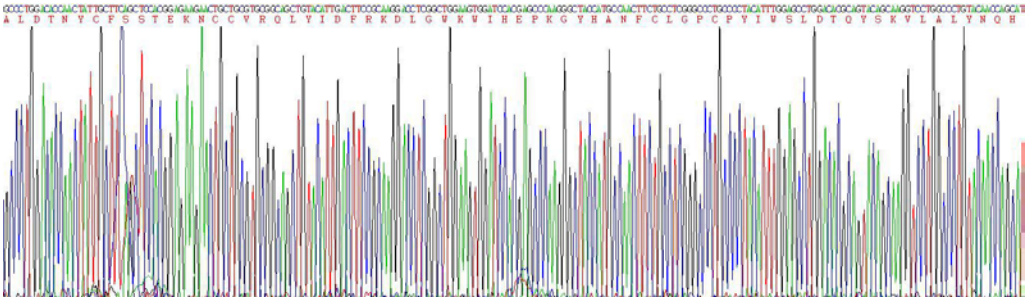

Figure 2. Gene Sequencing (extract)

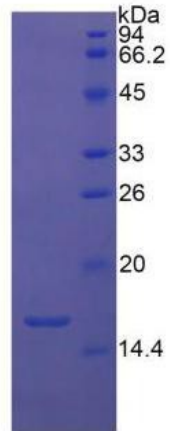

Figure 3. SDS-PAGE

Sample: Active recombinant TGFb1, Human

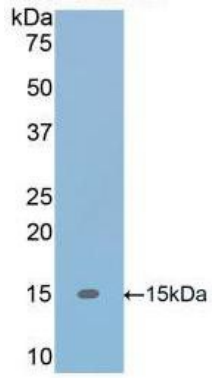

Figure 4. Western Blot

Sample: Recombinant TGFb1, Human;

Antibody: Rabbit Anti-Human TGFb1 Ab