APA124Mu63 100μg
Active Transforming Growth Factor Beta 1 (TGFb1)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Leu30~Ser390
Tags: N-terminal His-tag
Purity: >85%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.5
Predicted Molecular Mass: 42.9kDa
Accurate Molecular Mass: 38kDa as determined by SDS-PAGE reducing conditions.
Phenomenon explanation:
The possible reasons that the actual band size differs from the predicted are as follows:
1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

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

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C 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.

[SEQUENCE]

LSTCKTIDMELVKRKRIEAIRGQILSKLRLASPPSQGEVPPGPLPEAVLALYNSTRDRVAGESADPE
PEPEADYYAKEVTRVLMVDRNNAIYEKTKDISHSIYMFFNTSDIREAVPEPPLLSRAELRLQRLKSS
VEQHVELYQKYSNNSWRYLGNRLLTPTDTPEWLSFDVTGVVRQWLNQGDGIQGFRFSAHCSC
DSKDNKLHVEINGISPKRRGDLGTIHDMNRPFLLLMATPLERAQHLHSSRHRRALDTNYCFSST
EKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPGASA
SPCCVPQALEPLPIVYYVGRKPKVEQLSNMIVRSCKCS

[ACTIVITY]

TGF-β 1(Transforming growth factor beta 1) is a multifunctional set of peptides that controls proliferation, differentiation, and other functions in many cell types. Transforming Growth Factor Beta Receptor II (TGFbR2) can bind TGF-β 1 to initiate SMAD signaling. Thus we have conducted a binding ELISA assay to detect the interaction of recombinant mouse TGF-β 1 with recombinant human TGFbR2. Briefly, TGF-β 1 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100ul were then transferred to TGFbR2-coated microtiter wells and incubated for 2h at 37° C. Wells were washed with PBST and incubated for 1 h with anti-TGFbR2 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 recombinant mouse TGF-β 1 with recombinant human TGFbR2 was shown in Figure 1 , the EC50 for this effect is 0.476ug/mL.

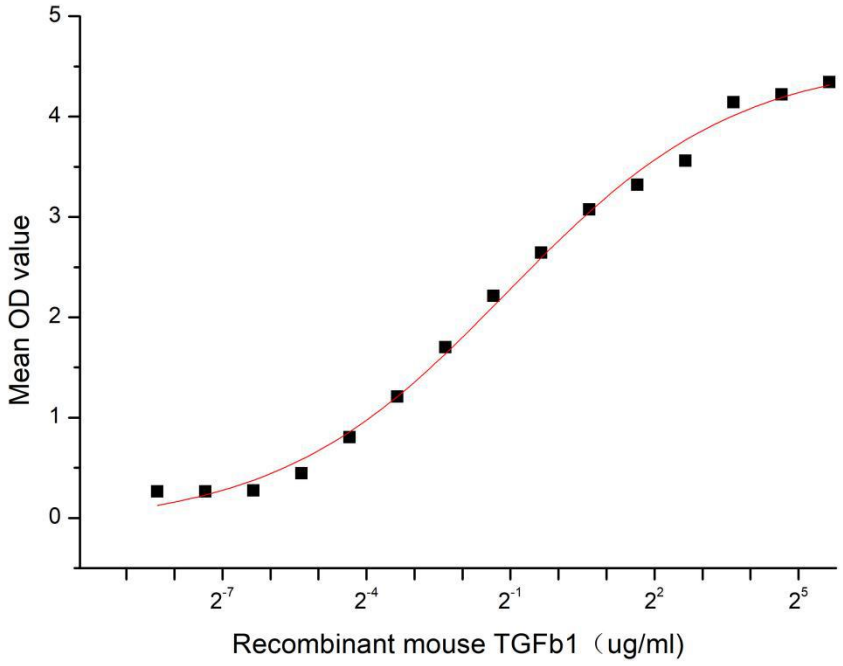

Figure 1. The binding activity of recombinant mouse TGF-β1 with recombinant human TGFbR2

[IDENTIFICATION]

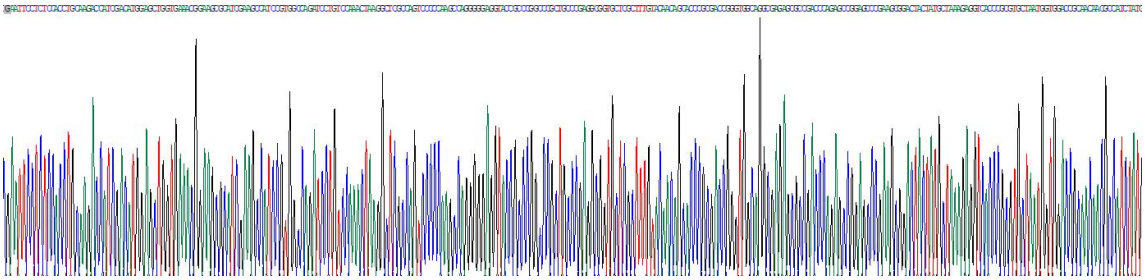

Figure 2. Gene Sequencing (extract)

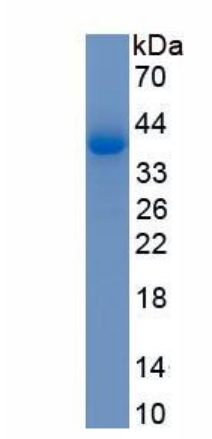

Figure 3. SDS-PAGE

Sample: Active recombinant TGFb1, Mouse

[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.