APD862Mu01 100μg
Active Tyrosine Aminotransferase (TAT)
Organism Species: *Mus musculus* (Mouse)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Pro190~Lys454
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.0
Predicted Molecular Mass: 33.7kDa
Accurate Molecular Mass: 34kDa 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 2-8°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 37ºC 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]

P EKSWEIDLKQ
LESLIDEKTA CLVVNNPSNP CGSVFSKRHL QKILAVAERQ CVPILADEIY
GDMVFSDCKY EPMATLSTNV PILSCGGLAK RWLVPGWRLG WILIHDRRDI
FGNEIRDGLV KLSQRILGPC TIVQGALKSI LQRTPQEFYQ DTLSFLKSNA
DLCYGALSAI PGLQPVRPSG AMYLMVGIEM EHFPEFENDV EFTERLIAEQ
SVHCLPATCF EYPNFFRVVI TVPEVMMLEA CSRIQEFCEQ HYHCAEGSQE
ECDK

[ACTIVITY]

Tyrosine aminotransferase (TAT) is an enzyme present in the liver and catalyzes the conversion of tyrosine to 4-hydroxyphenylpyruvate. In humans, the tyrosine aminotransferase protein is encoded by the TAT gene. A deficiency of the enzyme in humans can result in what is known as Type II Tyrosinemia, wherein there is an abundance of tyrosine as a result of tyrosine failing to undergo an aminotransferase reaction to form 4-hydroxyphenylpyruvate. Besides, Glutamine synthetase (GS) has been identified as an interactor of TAT, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse TAT and recombinant mouse GS. Briefly, TAT were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to GS-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-TATpAb, 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℃. Finally, add 50μL stop solution to the wells and read at

450nm immediately. The binding activity of TAT and GS was shown in Figure 1, and this effect was in a dose dependent manner.

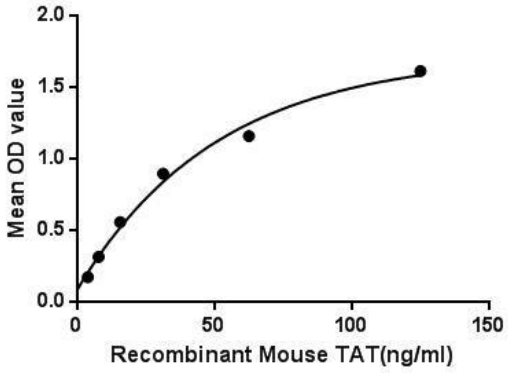

Figure 1. The binding activity of TAT with GS.

[IDENTIFICATION]

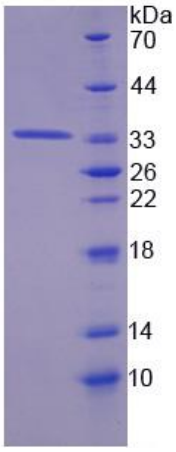

Figure 2. SDS-PAGE

Sample: Active recombinant TAT, Mouse

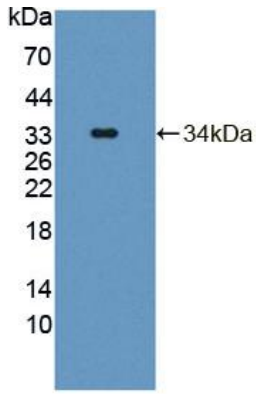

Figure 3. Western Blot

Sample: Recombinant TAT, Mouse;

Antibody: Rabbit Anti-Mouse TAT Ab (PAD862Mu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.