

Active Recombinant Human TAT protein, His-tagged

Cat. No. TAT-1709H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human TAT protein(P17735)(221-454 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	221-454 aa
Form	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-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. Tyrosine Aminotransferase as a dimer has two identical active sites. Lys280 is attached to PLP, which is held in place via two nonpolar amino acid side chains; phenylalanine and isoleucine (see thumbnail on right). The PLP is also held in place by hydrogen bonding to surrounding molecules mainly by its phosphate group. Besides, Heat Shock 70kDa Protein 8 (HSPA8) has been identified as an interactor of TAT, thus an indirect ELISA assay was conducted to detect the interaction of recombinant human TAT and recombinant human HSPA8.

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Briefly, TAT were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to HSPA8-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TAT 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 50μ stop solution to the wells and read at 450nm immediately. The binding activity of TAT and HSPA8 was shown, and this effect was in a dose dependent manner.

Molecular Mass	30.0kDa
Purity	> 95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	TAT tyrosine aminotransferase [Homo sapiens]
Official Symbol	TAT
Synonyms	TAT; tyrosine aminotransferase; tyrosine aminotransferase, cytosolic; L-tyrosine:2-oxoglutarate aminotransferase;
Gene ID	6898
mRNA Refseq	NM_000353

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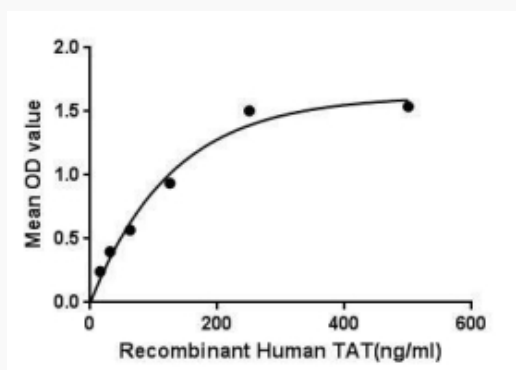
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Protein Refseq NP_000344

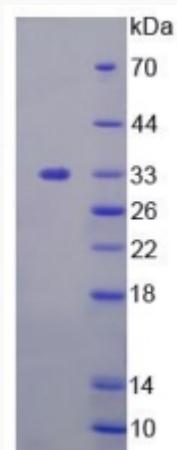
MIM 613018

UniProt ID P17735

Activity



SDS-PAGE



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