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# Certificate of Analysis and Data Sheet

## Recombinant Human Alanine Aminotransferase

**Catalog No.**  
228-10043

**Source:**  
*Escherichia Coli*

### **Synonyms**

ALT1, Glutamic-pyruvic transaminase 1, GPT 1, Glutamic-alanine transaminase 1, AAT1, ALT, ALAT, SGPT.

### **Introduction**

Alanine transaminase or ALT is a transaminase enzyme.

ALT is found in serum and in various bodily tissues, but is most commonly associated with the liver; It catalyzes the transfer of an amino group from alanine to  $\alpha$ -ketoglutarate, the products of this reversible transamination reaction being pyruvate and glutamate-alanine +  $\alpha$ -ketoglutarate. Pyruvate + glutamate. It is commonly measured clinically as a part of a diagnostic liver function test, to determine liver health. It is also called serum glutamate pyruvate transaminase (SGPT) or alanine aminotransferase (ALAT). Diagnostically, it is almost always measured in units/litre (U/L).

### **Description**

Alanine Aminotransferase Human Recombinant produced in E. Coli is a single, non-glycosylated, polypeptide chain containing having a molecular mass of 54,479 Dalton. The ALT is purified by proprietary chromatographic techniques.

### **Physical Appearance**

Sterile liquid formulation.

### **Formulation**

The protein was dialyzed against 40mM sodium acetate buffer (pH 5.5), 1mM DTT, 1mM EDTA, 5mM 2-oxoglutarate and 0.1mM pyridoxal-5'-phosphate.

### **Stability**

AAT1 although stable at 10°C for 5 days, should be stored desiccated below -18°C.

**Please prevent freeze-thaw cycles.**

### **Purity**

Greater than 95.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

### **Biological Activity**

The specific activity was found to be 1,000 U/mg.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**