

Recombinant Human Alanine Aminotransferase (ALT/SGPT)

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. ENZ-280
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➤ **Background:**

The enzyme alanine aminotransferase (ALT) was previously known as serum glutamic pyruvic transaminase (SGPT). This enzyme also is correctly referred to as alanine transaminase. ALT is a cytoplasmic enzyme that catalyzes the transamination of alpha-ketoglutarate and L-alanine, forming glutamate and pyruvate. The highest activities of ALT are found in hepatocytes and striated (skeletal and cardiac) muscle cells. Therefore, increased serum ALT activity can accompany hepatocellular injury or necrosis of striated muscle. With cell injury or death, ALT (a "leakage" enzyme) escapes from the cytosol. Determination of ALT activity is a relatively sensitive indicator of hepatic damage in certain animal species and can help determine whether further diagnostic tests

➤ **Description :**

Recombinant ALT produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 495 amino acids and having a molecular mass of 54,479 Dalton. Recombinant Alanine Aminotransferase is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile filtered liquid formulation

➤ **Formulation:**

Recombinant ALT, at a concentration of 1mg/ml, was dialyzed against 40mM sodium acetate buffer (pH 5.5), 1mM DTT, 1mM EDTA, 5mM 2-oxoglutarate and 0.1mM pyridoxal-5'-phosphate.

➤ **Stability:**

Recombinant Alanine Aminotransferase, although stable at 4C for 1 week, should be stored desiccated below -18 C.

Please avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

The specific activity was found to be 500 IU/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Recombinant ALT.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.