

## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

# **Recombinant Bovine Trypsin**

Catalog No. Source 228-11572 Corn

#### Introduction

Trypsin is a serine protease that hydrolyses proteins, it is found in the digestive system of numerous vertebrates. Trypsin is produced as the inactive proenzyme trypsinogen in the pancreas. Trypsin cleaves peptide chains at the carboxyl side of the amino acids lysine and arginine, except when either is followed by proline. Trypsin is secreted into the duodenum, where it acts to hydrolyses peptides into amino acids, which is necessary for the uptake of protein in the food even though peptides are smaller than proteins; they are still too big to be absorbed through the lining of the ileum. The optimal operating pH for Trypsins is about 8 and about 37°C temperature. In cystic fibrosis disease there is a deficiency in transport of trypsin and other digestive enzymes from the pancreas. Trypsin is widely used in various biotechnological processes since it's available in high quantity in the pancreases, and can be purified rather easily.

## Description

Recombinant Bovine Trypsin is free from any animal and human sources. % of inhibition is equal to bovine trypsin.

## Physical Appearance

Sterile Filtered lyophilized powder.

#### **Formulation**

The protein was lyophilized without any additives.

### **Solubility**

It is recommended to reconstitute the lyophilized Bovine Trypsin in sterile  $18M\Omega$ -cm H2O not less than  $100\mu g/ml$ , which can then be further diluted to other aqueous solutions.

## Stability

Bovine Trypsin although stable at room temp for 1 week, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

### Purity

Greater than 90% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

# **Biological Activity**

3,650 Units/mg.

The products are furnished for LABORATORY RESEARCH USE ONLY.

Not for diagnostic or therapeutic use.