

(Diagnostic Reagent Grade)

# HUMAN ENZYMES

(For use as ERMs, calibrators, and control serums)

ERM : Enzyme Reference Material

## Features

- ① All eight enzymes are human type (from recombinant cells and human sources).
- ② Types of isozymes and the characteristics of the enzymes closely resemble those in human sera.

### (1) List of Enzymes

Product Number	Abbreviation	Enzyme	EC Number	Form
T-70	HC-AST II(GOT)	Aspartate aminotransferase	EC 2.6.1.1	lyophilized
T-71	HC-ALT II(GPT)	Alanine aminotransferase	EC 2.6.1.2	lyophilized
T-72	HC-GTP	$\gamma$ -Glutamyltransferase	EC 2.3.2.2	lyophilized
T-73	HC-ALP	Alkaline phosphatase	EC 3.1.3.1	liquid
T-74	HC-CK II	Creatine kinase	EC 2.7.3.2	lyophilized
T-208	HC-LD II	Lactate dehydrogenase	EC 1.1.1.27	lyophilized
T-133	HC-AMY II	$\alpha$ -Amylase (Pancreatic, Salivary)	EC 3.2.1.1	lyophilized
T-110	HP-AMY II	$\alpha$ -Amylase (Pancreatic)	EC 3.2.1.1	lyophilized
T-77	HC-LP	Lipase (Pancreatic)	EC 3.1.1.3	lyophilized

### (2) Origin and Isozyme

Enzyme	Abbreviation	Origin	Manufacturing Method	Isozyme Type
AST	HC-AST II	human liver	recombinant <i>E.coli</i>	cytosolic
ALT	HC-ALT II	human liver	recombinant <i>E.coli</i>	cytosolic
$\gamma$ -GTP	HC-GTP	human liver	recombinant mammalian cell	II (liver)
ALP	HC-ALP	human liver	recombinant mammalian cell	liver
CK	HC-CK II	human muscle	recombinant <i>E.coli</i>	MM
LD	HC-LD II	human RBC	recombinant <i>E.coli</i>	I
P,S-AMY	HC-AMY II	human pancreas	recombinant yeast	P
		human saliva	—	S
P-AMY	HP-AMY II	human pancreas	recombinant yeast	P
Lipase	HC-LP	human pancreas	recombinant mammalian cell	P

\* RBC: red blood cell M: muscle P: pancreatic S: salivary