

# ENZYMES

## Lipase

ORIGIN *Chromobacterium viscosum*

CAT# LIPA-70-1461  
 EC# 3.1.1.3

### ► SPECIFICATIONS

|                   |                                       |
|-------------------|---------------------------------------|
| Appearance        | White to off white lyophilized powder |
| Activity          | ≥2500 U/mg powder at 37°C             |
| Specific Activity | ≥2500 U/mg protein at 37°C            |
| Contaminants      | <b>NADH Oxidase</b> ≤0.01%            |
|                   | <b>Catalase</b> ≤0.01%                |
|                   | <b>Cholesterol Oxidase</b> ≤0.01%     |

### ► ASSAY PRINCIPLE

Lipoprotein Lipase (LP) catalyses the following reaction:



The generation of Fatty acid is measured by titration.

### ► UNIT DEFINITION

One unit of activity is defined as the amount of enzyme that will catalyse the formation of 1.0 micromole of fatty acid per minute at 37°C under the standard assay method conditions.

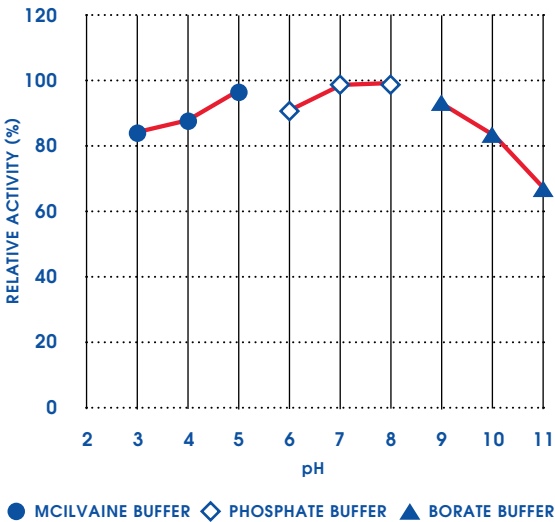
### ► APPLICATION

Useful for enzymatic determination of triglyceride.

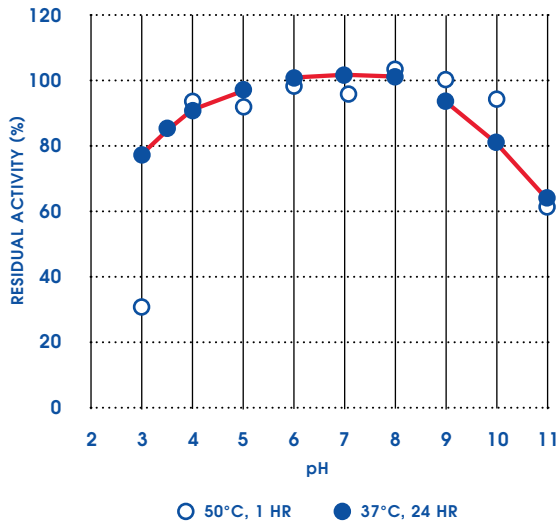
## CHARACTERISTICS

|                                    |  |
|------------------------------------|--|
| <b>Molecular Weight:</b>           | 120kDa (pH 3.7) (gel filtration)               |
| <b>Isoelectric Point:</b>          | pH 3.7 and 7.3                                 |
| <b>Optimum pH (Fig. 1):</b>        | 3.0 to 10.0                                    |
| <b>pH Stability (Fig. 2):</b>      | 4.0 to 10.0 (50°C for 60 minutes)              |
| <b>Thermal Stability (Fig. 3):</b> | Stable at 70°C and below (pH 7.0 for 10 hours) |

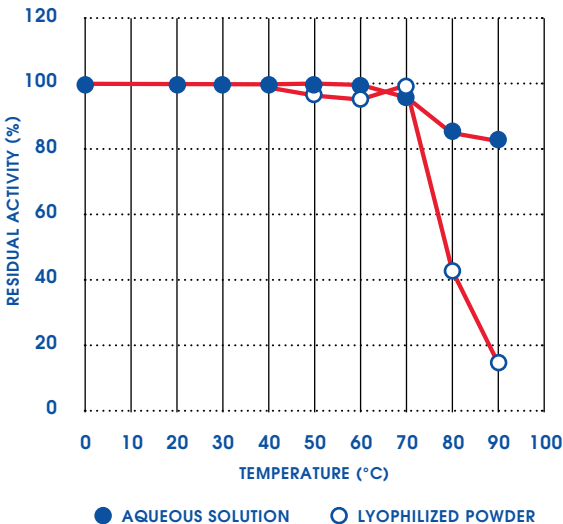
**FIGURE 1: OPTIMUM pH**



**FIGURE 2: pH STABILITY**



**FIGURE 3: THERMAL STABILITY (pH 7.0 FOR 10 HRS.)**



**TABLE 1: THE SUBSTRATE SPECIFICITY OF LIPASE**

| SUBSTRATE    | RELATIVE ACTIVITY (%) |
|--------------|-----------------------|
| Triolein     | 100%                  |
| Tripalmitin  | 22%                   |
| Trimyristin  | 53%                   |
| Trilaurin    | 103%                  |
| Tricaprin    | 166%                  |
| Tricaprylin  | 312%                  |
| Tricaproin   | 156%                  |
| Tributylin   | 94%                   |
| Tripropionin | 22%                   |
| Triacetin    | 38%                   |

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