

## Product Information

### Lipase from *Thermus thermophilus*

Catalog Number **L3419**  
Storage Temperature 2–8 °C

CAS RN 9001-62-1  
EC 3.1.1.3

#### Product Description

Lipases catalyze the hydrolysis of ester bonds of lipid substrates such as mono, di, and triglycerides to glycerol and fatty acid(s). Lipases from thermophilic bacteria such as *Thermus thermophilus* have optimal activity in the elevated temperature range of 65–70 °C. Lipases are ubiquitous, being found in mammals, fungi, and bacteria. Lipases are involved in diverse biological processes ranging from routine metabolism of dietary lipids to cell signaling and inflammation.<sup>1-3</sup>

The product is a crude preparation containing a mixture of intracellular lipases and is supplied as a lyophilized powder.

Specific Activity: ≥3 units/g solid

Unit definition: One unit will liberate 1.0 μmole of palmitic acid per minute at pH 8.0 and 65 °C from 4-nitrophenyl palmitate.

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Preparation Instructions

The product is soluble in 50 mM Tris-HCl, pH 8.0. The solution is stable for at least one month at 2–8 °C.

#### Storage/Stability

Store the lyophilized product at 2–8 °C. Under these conditions the product is stable for 2 years.

#### References

1. Fuciños, F., et al., *Biotechnol. Prog.*, **21**, 1198-1205 (2005).
2. Oshima, T., and Imahori, K., *Int. J. of System. Bac.*, **24**, 102-112 (1974).
3. Saiki, T., et al., *Agr. Biol. Chem.*, **36**, 2357-2366 (1972).

RBG,DWF,MAM 12/08-1

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.