

# PRODUCT INFORMATION



## Hormone-Sensitive Lipase (human, recombinant)

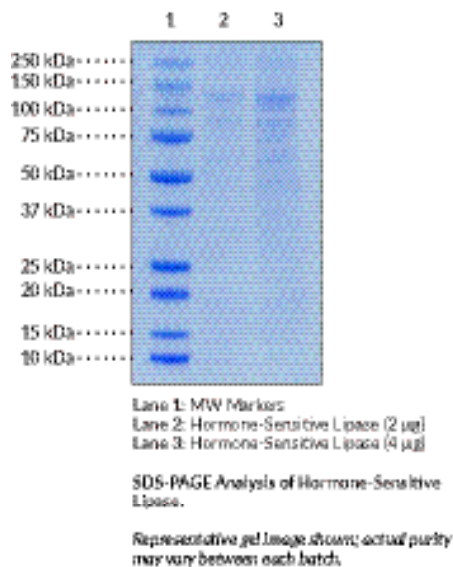
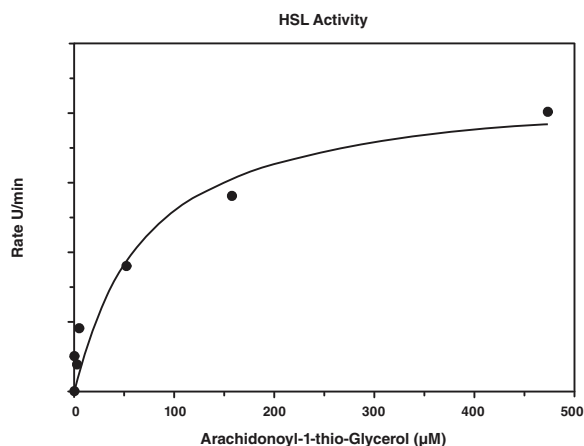
Item No. 10664

### Overview and Properties

**Synonyms:** HSL, LIPE  
**Source:** Active recombinant N-terminal hexahistidine-tagged protein, expressed in Sf21 insect cells using a baculovirus expression system.  
**Uniprot No.:** Q01469  
**Amino Acids:** 2-1,076 (full-length)  
**Molecular Weight:** 118.3 kDa  
**Storage:** -80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein  
**Stability:** ≥1 year  
**Supplied in:** *batch specific*  
**Protein Concentration:** *batch specific* mg/ml  
**Activity:** *batch specific* U/ml  
**Specific Activity:** *batch specific* U/mg  
**Unit Definition:** One unit is defined as the amount of enzyme required to produce 1 nmol of thioglycerol from arachidonoyl-1-thio-glycerol per minute at 37°C in 10 mM Tris-HCl, pH 8.0, containing 1 mM EDTA

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Hormone-sensitive lipase (HSL) is a key enzyme regulating the mobilization of fatty acids from intracellular stores.<sup>1</sup> There are three different isoforms of the enzyme: HSL<sub>adi</sub>, which is the predominant form found in adipocytes, HSL<sub>tes</sub> expressed in testes, and HSL<sub>b</sub> found in insulin secreting  $\beta$ -cells.<sup>2</sup> The three isoforms are distinguished by their molecular masses.<sup>2</sup> HSL catalyses the rate limiting step in the lipolysis of triacylglycerol, found in intracellular stores, to fatty acids.<sup>3</sup> HSL also catalyzes the hydrolysis of mono- and diacylglycerides, as well as cholesterol esters.<sup>4</sup>

## References

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1. Holm, C., Belfrage, P., Østerlund, T., et al. *Protein Eng.* **7(4)**, 537-541 (1994).
2. Krintel, C., Klint, C., Lindvall, H., et al. *PLoS One* **5(6)**, (2010).
3. Zimmermann, R., Lass, A., Haemmerle, G., et al. *Biochim. Biophys. Acta* **1791**, 494-500 (2009).
4. Saltiel, A.R. *Proc. Natl. Acad. Sci. USA* **97(2)**, 535-537 (2000).

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