

#4107 Store at -20C

# HSL Antibody



**Cell Signaling**  
TECHNOLOGY®

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<b>Applications:</b> WB, IP, IF-IC	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 81, 83	<b>Source:</b> Rabbit	<b>UniProt ID:</b> #Q05469	<b>Entrez-Gene Id:</b> 3991
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## Product Usage Information

### Application

Western Blotting  
Immunoprecipitation  
Immunofluorescence (Immunocytochemistry)

### Dilution

1:1000  
1:50  
1:100 - 1:200

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

## Specificity / Sensitivity

HSL Antibody detects endogenous levels of total HSL protein.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human HSL. Antibodies are purified by peptide affinity chromatography.

## Background

HSL (hormone-sensitive lipase) catalyzes the hydrolysis of triacylglycerol, the rate-limiting step in lipolysis. Lipolytic stimuli activate adenyl cyclase and thus increase intracellular cAMP levels, which in turn activate protein kinase A (PKA). PKA phosphorylates HSL at Ser563, Ser659, and Ser660, which stimulates HSL activity (1,2). In contrast, AMPK phosphorylates HSL at Ser565, which reduces HSL phosphorylation at Ser563 by PKA and inhibits HSL activity (2,3). Recent work indicates that phosphorylation at Ser600 by p44/42 MAPKs also enhances the enzymatic activity of HSL (4).

## Background References

1. Degerman, E. et al. (1990) *Proc. Natl. Acad. Sci. USA* 87, 533-37.
2. Anthonson, M.W. et al. (1998) *J. Biol. Chem.* 273, 215-21.
3. Garton, A.J. and Yeaman, S.J. (1990) *Eur. J. Biochem.* 191, 245-50.
4. Greenberg, A.S. et al. (2001) *J. Biol. Chem.* 276, 45456-61.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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