Phospho-HSL (Ser660) Antibody

Store at -20c

#4126

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	M R	Endogenous	81, 83	Rabbit	#Q05469	3991

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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

Phospho-HSL (Ser660) Antibody detects endogenous levels of HSL only when phosphorylated at Ser660 by PKA. This antibody does not cross-react with Ser563, Ser565 or Ser659 phosphorylated HSL.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser651 of mouse HSL (equivalent to Ser660 of rat HSL). Antibodies are purified by protein A and peptide affinity chromatography.

Background

HSL (hormone-sensitive lipase) catalyzes the hydrolysis of triacylglycerol, the rate-limiting step in lipolysis. Lipolytic stimuli activate adenylyl 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. Anthonsen, 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

M: Mouse **R:** Rat

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