

# Phospho-Shc (Tyr317) Antibody

100 µl  
 (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications W Endogenous	Species Cross-Reactivity*		Molecular Wt. 50, 55, 70 kDa	Source Rabbit**
	H, M			

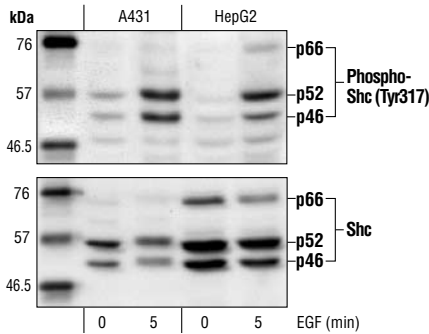
**Background:** Shc possesses SH2 and PTB domains and serves as a scaffold protein in signaling for a variety of receptor tyrosine kinases. Shc exists in p46, p52 and p66 isoforms, which are produced by using alternative translation initiation sites or a differentially spliced message (1-3). In response to extracellular signals, the SH2 and PTB domains of Shc interact with the activated receptors, leading to phosphorylation of Shc on three different tyrosine residues: Tyr239, Tyr240 and Tyr317 (4-6). GRB2/Sos binds to Shc phosphorylated at these sites, activating the Ras/Raf/MAPK pathway (4). Both Shc expression and its tyrosine phosphorylation play an essential and nonredundant role in thymic T cell development (7).

**Specificity/Sensitivity:** Phospho-Shc (Tyr317) Antibody detects Shc only when phosphorylated at Tyr317.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr317 of human Shc. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

- (1) Pelicci, G. et al. (1992) *Cell* 70, 93-104.
- (2) Migliaccio, E. et al. (1997) *EMBO J.* 16, 706-716.
- (3) Okada, S. et al. (1997) *J. Biol. Chem.* 272, 28042-28049.
- (4) Salcini, A. E. et al. (1994) *Oncogene* 9, 2827-2836.
- (5) Gotoh, N. et al. (1996) *EMBO J.* 15, 6197-6204.
- (6) Van der Geer, P. et al. (1996) *Curr. Biol.* 6, 1435-1444.
- (7) Zhang, L. et al. (2002) *Nat. Immunol.* 3, 749-755.



Western blot analysis of extracts from A431 and HepG2 cells, untreated or EGF-treated (100 ng/ml) after 24 hours of serum-starvation, using Phospho-Shc (Tyr317) Antibody (upper) or Shc antibody (lower).

**Entrez-Gene ID** #6464  
**Swiss-Prot Acc.** #P29353

**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.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western Blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

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