

Phospho-Ack1 (Tyr284) 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	Species Cross-Reactivity*	Molecular Wt.	Source
W Transfected	H, (M, R)	135 kDa	Rabbit**

Background: Ack1 and Ack2 (activated cdc42-associated kinase 1 and 2) are non-receptor tyrosine kinases that comprise a tyrosine kinase core, an SH3 domain, a cdc42-binding region, a Ralt homology region and a proline-rich region (1,2). They are the only two tyrosine kinases known to interact with cdc42. Both Acks are activated by growth factors including EGF, PDGF as well as activation of integrins by cell adhesion and may serve as a point of convergence between receptor tyrosine kinase or G protein-coupled receptor signaling and cdc42. Acks may regulate cell growth, morphology and motility (3,4).

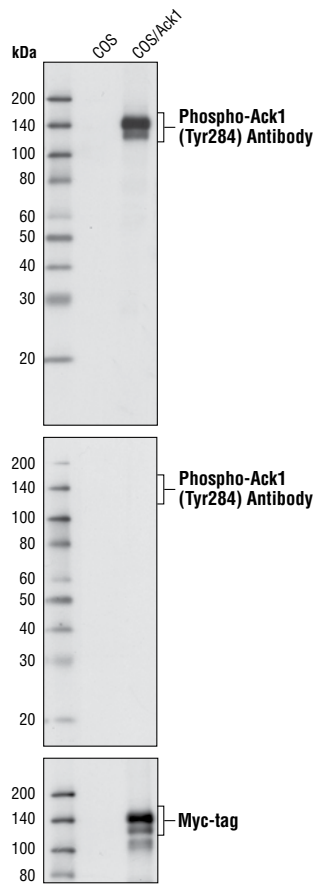
Tyr284 is located in the activation loop of Ack1 and is a primary autophosphorylation site critical for Ack1 kinase activity (5).

Specificity/Sensitivity: Phospho-Ack1 (Tyr284) Antibody detects transfected levels of Ack1 only when phosphorylated at Tyr284.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr284 of human Ack1. Antibodies are purified by peptide affinity chromatography.

Background References:

- (1) Galisteo, M.L. et al. (2006) *Proc. Natl. Acad. Sci. USA* 103, 9796–9801.
- (2) Yokoyama, N. and Miller, W.T. (2003) *J. Biol. Chem.* 278, 47713–47723.
- (3) Yang, W. and Cerione, R.A. (1997) *J. Biol. Chem.* 272, 24819–24824.
- (4) Yang, W. et al. (2001) *J. Biol. Chem.* 276, 43987–43993.
- (5) Yokoyama, N. and Miller, W.T. (2006) *Methods Enzymol.* 406, 250–260.



Western blot analysis of extracts from COS cells, untransfected or overexpressing Myc-tagged Ack1 protein, using Phospho-Ack1 (Tyr284) Antibody (upper and middle) and Myc-Tag (71D10) Rabbit mAb #2278 (lower). The middle blot was treated with calf intestinal phosphatase (CIP) before antibody probing. (The lysates of COS cells overexpressing Myc-tagged Ack1 were kindly provided by Dr. Wannian Yang, Weis Center for Research, Geisinger Clinic.)

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.cellsignaling.com.

Please visit www.cellsignaling.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.