

**#3138** Store at -20°C

## Phospho-Ack1 (Tyr284) Antibody


**Cell Signaling**  
TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, W-S	H	Transfected Only	135	Rabbit	#Q07912	10188

### Product Usage Information

#### Application

Western Blotting  
Simple Western™

#### Dilution

1:1000  
1:10 - 1:50

### 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-Ack1 (Tyr284) Antibody detects transfected levels of Ack1 only when phosphorylated at Tyr284.

### Species predicted to react based on 100% sequence homology:

Mouse, Rat

### 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

Ack1 and Ack2 (activated cdc42-associated kinase 1 and 2) are non-receptor tyrosine kinases that consist of a tyrosine kinase core, an SH3 domain, a cdc42/Rac-binding (CRIB) domain, a Ralt homology region and a proline-rich region (1,2). Ack1 and 2 are the only two tyrosine kinases known to interact with cdc42. Both Acks are activated by growth factors including EGF and PDGF, as well as by activated integrins through cell adhesion, and may serve to link receptor tyrosine kinase or G protein-coupled receptor signaling with cdc42. Acks may regulate cell growth, morphology and motility (3,4). Recent findings indicate that Ack1 may play a role in prostate tumorigenesis, making it a potential drug target for this type of cancer (5).  
Tyr284 is located in the activation loop of Ack1 and is a primary autophosphorylation site critical for Ack1 kinase activity (5).

### Background References

- Galisteo, M.L. et al. (2006) *Proc. Natl. Acad. Sci. USA* 103, 9796-9801.
- Yokoyama, N. and Miller, W.T. (2003) *J. Biol. Chem.* 278, 47713-47723.
- Yang, W. and Cerione, R.A. (1997) *J. Biol. Chem.* 272, 24819-24824.
- Yang, W. et al. (2001) *J. Biol. Chem.* 276, 43987-43993.
- Mahajan, N.P. et al. (2005) *Cancer Res.* 65, 10514-10523.
- Yokoyama, N. and Miller, W.T. (2006) *Methods Enzymol.* 406, 250-260.

### 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 **W-S:** Simple Western™

### 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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