Revision 1

#39444 Store at -20C

Abi1 (D3G6C) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	55-65	Rabbit IgG	#Q8IZP0	10006

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Abi1 (D3G6C) Rabbit mAb recognizes endogenous levels of total Abi1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr118 of human Abi1 protein.

Background

Abi1, Abi2 and Abi3 are members of the Abl1 interactor family, which function as adaptor signaling molecules down stream of the receptor tyrosine kinase Ab1 (1-3). In addition to Abl, Abi1 has been shown to interact with the important signaling transducers WAVE and p85PI3K to regulate cytoskeletal and growth signaling (4,5). Along its sequences, Abi1 has multiple modules for carrying on these interactions. It has a WAVE binding domain, which allows it to interact with WAVE, a homeo-domain/PEST domain, which, when phosphorylated can acts as a docking site for SH2 binding, a PXXP sequence to interact with the SH3 domain of Abl, and a C-terminal SH3 domain for interaction with the proline rich region of Ab1 (4,5). Abl can phosphorylate Abi1 on Y213 (6), the phosphorylated sequence serves as a docking site for both the SH2 domain of Abl and the SH2 domain of p85PI3K (7). Another important phosphorylation site for Abi1 is Y435. Phosphorylation of Abi1 at Y435 promotes tumor cell adhesion and invasion (8).

Background References

1. Shi, Y. et al. (1995) *Genes Dev* 9, 2583-97.
2. Dai, Z. and Pendergast, A.M. (1995) *Genes Dev* 9, 2569-82.
3. Miyazaki, K. et al. (2000) *Biochim Biophys Acta* 1493, 237-41.
4. Kotula, L. (2012) *FEBS Lett* 586, 2790-4.
5. Hossain, S. et al. (2012) *Genes Cancer* 3, 402-13.
6. Xiong, X. et al. (2008) *Biochim Biophys Acta* 1783, 737-47.
7. Dubielecka, P.M. et al. (2010) *FEBS Lett* 584, 3279-86.
8. Steinestel, K. et al. (2014) *Mol Cancer* 13, 145.

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

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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