Revision 4

Store at -20C

#9373

# Phospho-BAP1 (Ser592) Antibody

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, IP | H | Endogenous | 95 | Rabbit | #Q92560 | 8314 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 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-BAP1 (Ser592) Antibody detects endogenous levels of BAP1 only when phosphorylated at Ser592.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser592 of human BAP1.

## Background

BAP1 (BRCA1-Associated Protein 1) was originally identified as a BRCA1 associated, nuclear localized ubiquitin hydrolase that suppresses cell growth (1). The protein belongs to the UCH family of deubiquitinases, with a UCH domain in its N-terminal segment and a BRCA1 interaction domain as well as a nuclear localization signal in its C-terminal segment (1). Frequent gene locus rearrangement, deletion and null mutation of BAP1 have been found in lung and breast cancers (1,2). Mutation analysis *in vivo* in cancer cell line survival and in animal tumorigenesis indicate that both the deubiquitinase activity and the nuclear localization signal are required for BAP1 function as a tumor suppressor (3). BAP1 does not have direct deubiquitination activity towards the autoubiquitinyled BRCA1/BARD1 E3 complex (4), but its interaction with BARD1 inhibits BRCA1/BARD1 E3 activity by interfering with the compex dimerization process (5). In addition to its interaction with BRCA1/BARD1, BAP1 has also been shown to interact with and deubiquitinylate HCF-1, thereby controlling its stability (6). Phosphorylation of Ser592 on BAP1 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery (7).

## Background References

1. Jensen, D.E. et al. (1998) *Oncogene* 16, 1097-112.
2. Buchhagen, D.L. et al. (1994) *Int J Cancer* 57, 473-9.
3. Ventii, K.H. et al. (2008) *Cancer Res* 68, 6953-62.
4. Mallery, D.L. et al. (2002) *EMBO J* 21, 6755-62.
5. Nishikawa, H. et al. (2009) *Cancer Res* 69, 111-9.
6. Misaghi, S. et al. (2009) *Mol Cell Biol* 29, 2181-92.
7. Rush, J. et al. (2005) *Nat Biotechnol* 23, 94-101.

## 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

**W:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human

## Trademarks and Patents



## Limited Uses

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