

Phospho-BAP1 (Ser592) Antibody

- Small 100 μ l
(10 western blots)
- Petite 40 μ l
(4 western blots)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.
This product is not intended for use as a therapeutic or in diagnostic procedures.

Entrez-Gene ID #8314
Swiss-Prot Acc. #Q92560

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H	95 kDa	Rabbit**

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 autoubiquitinated BRCA1/BARD1 E3 complex (4), but its interaction with BARD1 inhibits BRCA1/BARD1 E3 activity by interfering with the complex dimerization process (5). In addition to its interaction with BRCA1/BARD1, BAP1 has also been shown to interact with and deubiquitinate HCF-1, thereby controlling its stability (6).

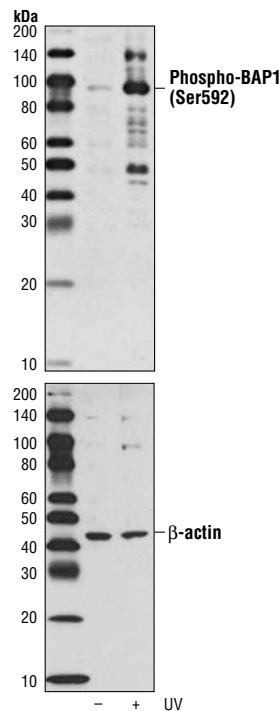
Phosphorylation of Ser592 on BAP1 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery (7).

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 (KLH-coupled) corresponding to residues surrounding Ser592 of human BAP1.

Background References:

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



Western blot analysis of extracts from HeLa cells, untreated or UV-treated (50 mJ, 1 hour recovery), using Phospho-BAP1 (Ser592) Antibody (upper) or β -Actin Antibody #4967 (lower) as a loading control.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/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
Immunoprecipitation	1:50

For application specific protocols, please see the web page for this product at www.cellsignal.com

Please visit 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.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA—Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.