

#14077 Store at -20°C

SYAP1/BSTA 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	H M R Mk	Endogenous	52	Rabbit	#Q96A49	94056

Product Usage Information

Application

Western Blotting

Dilution

1:1000

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

SYAP1/BSTA Antibody recognizes endogenous levels of total SYAP1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys110 of human SYAP1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Synapse-associated protein 1 (SYAP1) was originally described by its similarity to the *Drosophila* synapse-associated SAP47 protein (1). Subsequent research using a yeast two-hybrid system described the protein as a BSD domain-containing signal transducer and Akt interactor (BSTA) based on protein structure and function. The ubiquitously expressed BSTA protein contains a central BSD domain that may play a role in mediating interaction between the BSTA protein and the serine/threonine kinase Akt1 (2). Research studies support a model of Akt1 activation that involves interactions between the BSTA protein and both Akt1 and the mTORC2 kinase complex, followed by phosphorylation of both BSTA and Akt1 by mTORC2. This series of interactions and phosphorylation events is thought to result in phosphorylation of Akt1 at Ser473 and Akt1 kinase activation (2). The BSTA mediated phosphorylation of Akt1 may promote adipocyte differentiation by suppressing the expression of the transcription factor FoxC2 (2). Additional studies show that the estrogen receptor antagonist tamoxifen can regulate the expression of BSTA in some breast cancer cells, suggesting a possible role for BSTA in pathways related to response to tamoxifen and other chemopreventative agents (3).

Background References

1. Chang, Y.C. et al. (2001) *Shi Yan Sheng Wu Xue Bao* 34, 319-22.
2. Yao, Y. et al. (2013) *Sci Signal* 6, ra2.
3. Al-Daheri, M.H. et al. (2006) *Steroids* 71, 966-78.

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

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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