

Streptavidin (Sepharose® Bead Conjugate)



✓ 400 µl
(40 immunoprecipitations)

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity
IP	All

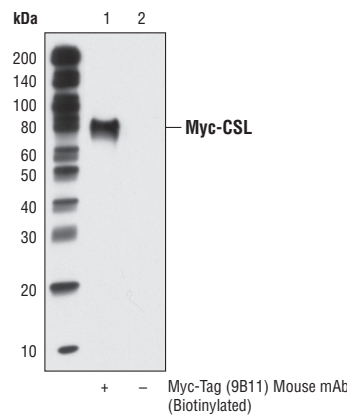
Description: Streptavidin (Sepharose® Bead Conjugate) is useful for the precipitation of biotinylated proteins (1,2). Recombinant streptavidin is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated Sepharose® beads.

Background: Streptavidin is a 53,000 dalton tetrameric protein purified from the bacterium *Streptomyces avidinii* (3). Each subunit binds to biotin with extremely high affinity. Because of its strong non-covalent interaction with biotin, streptavidin can be used to isolate biotinylated proteins (1,2).

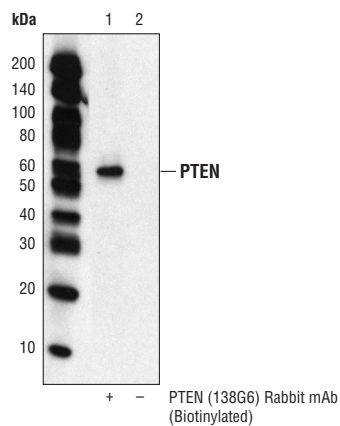
Specificity/Sensitivity: Streptavidin has a remarkably high affinity for its natural ligand, biotin. The complex and irregular structure of the biotin-binding site makes it highly optimized for biotin binding and confers great specificity to the streptavidin-biotin complexes (4).

Source/Purification: Streptavidin is expressed in *Escherichia coli*.

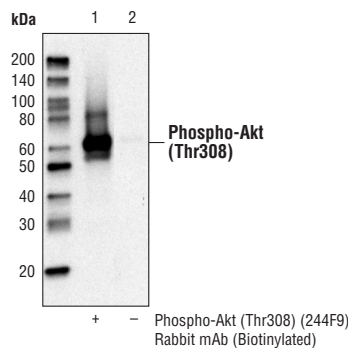
Directions for Use: Add 10 µl of well-vortexed beads to 200 µl of cell lysate at 1 mg/ml pre-incubated with biotinylated primary antibody. See protocol for more details.



Immunoprecipitation of extracts from COS cells transfected with Myc-Chorionic Somatomammotropin Hormone-Like 1 (CSL) protein using Myc-Tag (9B11) Mouse mAb (Biotinylated) #2084 and Immobilized Streptavidin (Bead Conjugate) (Lane 1) shows immunocomplexes pulled down using Streptavidin (Sepharose® Bead Conjugate). Lysate and beads alone are shown in lane 2 indicating the specificity of the streptavidin beads. Western blotting was performed using Myc-Tag (9B11) Mouse mAb (HRP Conjugate) #2040.



Immunoprecipitation of extracts from NIH/3T3 cells using PTEN (138G6) Rabbit mAb (Biotinylated) #9583 and Streptavidin (Sepharose® Bead Conjugate) (Lane 1). Lysate and beads alone are shown in lane 2 indicating the specificity of the streptavidin beads. Western blotting was performed using PTEN (26H9) Mouse mAb #9556.



Immunoprecipitation of extracts from Jurkat cells using Phospho-Akt (Thr308) (244F9) Rabbit mAb (Biotinylated) #3454 and Streptavidin (Sepharose® Bead Conjugate) (Lane 1). Lysate and beads alone are shown in lane 2 indicating the specificity of the streptavidin beads. Western blotting was performed using Phospho-Akt (Thr308) (L32A4) Mouse mAb #5106.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

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Background References:

- (1) Updyke, T.V. and Nicolson, G.L. (1984) *J Immunol Methods* 73, 83–95.
- (2) Buckie, J.W. and Cook, G.M. (1986) *Anal Biochem* 156, 463–72.
- (3) Chaiet, L. and Wolf, F.J. (1964) *Arch Biochem Biophys* 106, 1–5.
- (4) Reznik, G.O. et al. (1998) *Proc Natl Acad Sci USA* 95, 13525–13530.

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