

# Streptavidin (Magnetic Bead Conjugate)



✓ 400 µl  
 (40 immunoprecipitations)

**Orders** ■ 877-616-CELL (2355)  
 orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
 info@cellsignal.com  
**Web** ■ www.cellsignal.com

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Applications IP	Species Cross-Reactivity All
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**Description:** Streptavidin (Magnetic Bead Conjugate) is useful for the precipitation of biotinylated proteins (1,2). Recombinant streptavidin is immobilized by the covalent binding of primary amino groups with formylbenzamide-modified magnetic bead.

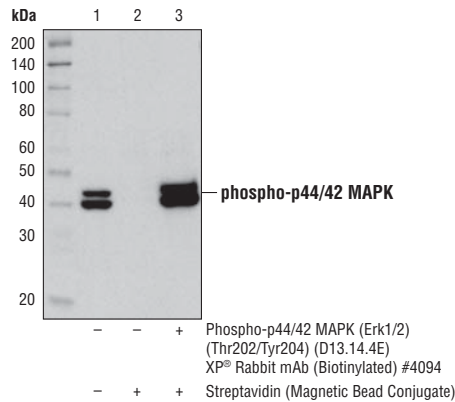
**Background:** Streptavidin is a 53,000 dalton tetrameric protein purified from the bacterium *Streptomyces avidinii* (3). Each subunit binds to biotin with extremely high affinity. Because of its strong non-covalent interaction with biotin, streptavidin can be used to isolate biotinylated proteins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

**Background References:**

- Updyke, T.V. and Nicolson, G.L. (1984) *J Immunol Methods* 73, 83-95.
- Buckie, J.W. and Cook, G.M. (1986) *Anal Biochem* 156, 463-72.
- Chaiet, L. and Wolf, F.J. (1964) *Arch Biochem Biophys* 106, 1-5.
- Reznik, G.O. et al. (1998) *Proc Natl Acad Sci USA* 95, 13525-30.



*Immunoprecipitation of phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) from NIH/3T3 cell extracts, treated with Human Platelet-Derived Growth Factor AA (hPDGF-AA) #8913 (10 min), using Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb (Biotinylated) #4094 and Streptavidin (Magnetic Bead Conjugate) (lane 3). Lysate and Streptavidin (Magnetic Bead Conjugate) are shown in lane 2, demonstrating streptavidin bead binding. Lane 1 shows 10% lysate. Western blot analysis was performed using Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (E10) Mouse mAb #9106.*

**Storage:** Supplied in PBS Buffer (pH 7.2), 0.1% Tween® 20. Store at 4°C. *Do not aliquot the antibody.*

**Directions for Use:** Add 10 µl of well-vortexed beads to 200 µl of cell lysate at 1 mg/ml in 1X Cell Lysis Buffer (10X) #9803. See protocol for more details.

For bead washing and subsequent elution of immunocomplexes, the beads can be separated from solution using our 6-Tube Magnetic Separation Rack #7017. Place the tubes containing the beads in the Magnetic Separation Rack and wait 1 to 2 minutes for the solution to clear before carefully removing the supernatant. Remove the tubes from the Magnetic Separation Rack, add new solution and resuspend the beads by gently vortexing or rocking the tube.

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