

## S. avidinii Streptavidin-NC - Purified

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| <b>Catalog No.:</b>      | PA1340X  |
| <b>Quantity:</b>         | 0.1 mg   |
| <b>Concentration:</b>    | 3 mg/ml  |
| <b>Background:</b>       | A 60kD extracellular protein of <i>Streptomyces avidinii</i> with four high-affinity biotin binding sites. Unlike AVIDIN, streptavidin has a near neutral isoelectric point and is free of carbohydrate side chains.   |
| <b>Uniprot ID:</b>       | <a href="#">P22629</a>   |
| <b>NCBI:</b>             | <a href="#">1895</a>   |
| <b>Species:</b>          | <i>S. avidinii</i>   |
| <b>Source:</b>           | <i>E. coli</i>   |
| <b>Format:</b>           | <p><b>Purity:</b> &gt;90% Proprietary chromatographic techniques, sterile filtered.<br/>&gt;90% pure as determined by</p> <p>a) Analysis by RP-HPLC<br/>b) Anion-exchange FPLC<br/>c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel</p> <p><b>Buffer System:</b> 0.5 mg/ml glycerol<br/><b>Endotoxin Level:</b> Less than 0.1 ng/μg (IEU/μg) of Recombinant Streptavidin.<br/><b>Dimers:</b> Less than 1% as determined by silver-stained SDS-PAGE gel analysis.</p>   |
| <b>Applications:</b>     | Calibrators and controls for immunoassays and western blot standards.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.  |
| <b>Description:</b>      | <p>Recombinant Streptavidin-NC is a single, non-glycosylated, polypeptide chain.<br/>Recombinant Streptavidin-NC not only binds to nitrocellulose membrane readily but also preserves the full biotin binding ability.</p> <p><b>Molecular weight:</b> 24 kDa 24 kDa</p>   |
| <b>Storage:</b>          | <p>Store the protein at 2 - 8 °C up to one month or in aliquots at -20 °C for longer. Avoid repeated freezing and thawing.<br/>Shelf life: one year from despatch.</p>   |
| <b>General Readings:</b> | <ol style="list-style-type: none"> <li>Chen HM, Lin CW. Hydrogel-coated streptavidin piezoelectric biosensors and applications to selective detection of Strep-tag displaying cells. <i>Biotechnol Prog.</i> 2007 May-Jun;23(3):741-8. Epub 2007 May 1. PubMed PMID: 17469846.</li> <li>Narain R, Gonzales M, Hoffman AS, Stayton PS, Krishnan KM. Synthesis of monodisperse biotinylated p(NIPAAm)-coated iron oxide magnetic nanoparticles and their bioconjugation to streptavidin. <i>Langmuir.</i> 2007 May 22;23(11):6299-304. Epub 2007 Apr 24. PubMed PMID: 17451262.</li> <li>Colonne M, Chen Y, Wu K, Freiberg S, Giasson S, Zhu XX. Binding of streptavidin with</li> </ol> |

- biotinylated thermosensitive nanospheres based on poly(N,N-diethylacrylamide-co-2-hydroxyethyl methacrylate). *Bioconjug Chem.* 2007 May-Jun;18(3):999-1003. Epub 2007 Apr 13. PubMed PMID: 17429939.
4. Biotinylation of TiO<sub>2</sub> nanoparticles and their conjugation with streptavidin. *Langmuir* 2007 May 8;23(10):5630-7
5. Perbandt M, Bruns O, Vallazza M, Lamla T, Betzel Ch, Erdmann VA. High resolution structure of streptavidin in complex with a novel high affinity peptide tag mimicking the biotin binding motif. *Proteins.* 2007 Jun 1;67(4):1147-53. PubMed PMID: 17377987.
6. Housni A, Cai H, Liu S, Pun SH, Narain R. Facile preparation of glyconanoparticles and their bioconjugation to streptavidin. *Langmuir.* 2007 Apr 24;23(9):5056-61. Epub 2007 Mar 22. PubMed PMID: 17375947.