

Data Sheet

# Streptavidin

Cat. No.: 2-0203-000, 2-0203-001, 2-0203-010,  
2-0203-100, 2-0203-101, 2-0203-105

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<b>Description</b>	<b>Streptavidin is a tetrameric protein composed of identic subunits. Each subunit specifically binds one biotin molecule with a <math>K_D</math> of <math>4 \times 10^{-14}</math> M. The preparation contains an N- and C-terminal shortened variant (core streptavidin) with improved properties regarding homogeneity, solubility, resistance towards proteolytic degradation, and accessibility of the biotin binding pocket as compared to native streptavidin. *</b>
<b>Form</b>	lyophilized from 25 mg/ml solution in 10 mM potassium phosphate buffer pH 6.5
<b>Extinction coefficient per subunit</b>	$\epsilon_{280} = 41,326 \text{ M}^{-1}\text{cm}^{-1}$
<b>Specific activity</b>	> 17 U/mg (one unit binds 1 $\mu\text{g}$ D-biotin)
<b>MW per subunit</b>	13331 Da
<b>Sequence</b>	MEAGITGTWYNQLGSTFIVTAGADGALTGTYESAVGNAESRYVLTGRYDSAPATDGSALTALGW TVAWKNNYRNAHSATTWSGQYVGGAEARINTQWLLTSGTTEANAWKSTLVGHDTFTKVKPSAAS
<b>Source</b>	Recombinant, expression in <i>E. coli</i>
<b>Stability</b>	24 months after shipping (lyophilized)
<b>Storage</b>	Lyophilized: -25 °C to -15 °C Recommended: 2 - 8 °C, for long term storage add 1 mM EDTA and/or 0.02% $\text{NaN}_3$ or pass the solution through a sterile filter.
<b>Shipping</b>	room temperature
<b>Reconstitution</b>	Dissolve with water (dissolved at 10 mg/ml, the solution will be buffered with 4.0 mM potassium phosphate pH 6.5). Any occurring turbidities are not a quality defect.
<b>Hazards</b>	Product is not classified as hazardous according to (EC) No 1272/2008 [CLP]. A Material Safety Data Sheet is provided.
<b>Application</b>	To generate streptavidin-coated surfaces (microplates, SPR chips, beads) or detection reagents conjugated with, e.g., fluorescent dyes

\* Pähler, A. et al. (1987). J. Biol. Chem. 262, 13933-13937; Bayer, E. A. et al. (1989). Biochem.J. 259, 369-376; Sano, T. & Cantor, C. R. (1991). BBRC 176, 571-577

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