

Data Sheet

Strep-Tactin®XT Superflow® High Capacity cartridge

Cat. No.: 2-4025-001, 2-4026-001

Version: 3.0

Lot No.: 4025-

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Description	Ready-to-use cartridge with Strep-Tactin®XT high capacity resin for the purification of Strep-tag®II and Twin-Strep-tag® fusion proteins. Strep-Tactin®XT is a streptavidin variant with optimized binding properties for Strep-tag® fusion proteins*. These cartridges are primarily designed for use with chromatography workstations using 10-32 connections. However, they can also be operated with other workstations, with syringes or with peristaltic pumps by the use of common adapters which are also available at IBA.
Support	Superflow® 6 (6 % agarose, crosslinked)
Form	Pre-packed in buffer, pH 8.0: 100 mM Tris-HCl pH 8.0, 1 mM EDTA, 150 mM NaCl, 0.02 % sodium azide
Dynamic Binding Capacity	15 mg protein/ml resin. Dynamic binding capacity was determined with 1mg/ml mCherry-Twin-Strep-tag® (30 kDa) at a flow rate of 0.5 ml/min. Please note: Binding capacity is protein dependent.
Stability	6 months after shipping
Storage	recommended: 2 - 8 °C
Shipping	room temperature
Hazards	Product is not classified as hazardous according to (EC) No 1272/2008 [CLP]. A Material Safety Data Sheet is provided.

Application	Important notes: To prevent damage to the column body, please be careful not to overly tighten the fittings. Cartridges do not generate significant back pressure which makes the use of flow restrictors superfluous. Therefore, IBA recommends no use of flow restrictors to avoid inhomogeneity resulting from buffer changes during chromatography. Any entrapped gas appearing during shipment or storage is no quality defect and can be easily removed by rinsing the column with several volumes of degassed buffer W.		
Recommended flow rate	cartridge volume	physical dimension	flow rate
	1 ml cartridge (2-4025-001)	0.7 cm (inner diameter) x 2.5 cm height	0.5-1 ml/min or 0.3-1 drop/sec**
	5 ml cartridge (2-4026-001)	1.6 cm (i.d.) x 2.5 cm h.	1-3 ml/min or 1-3 drops/sec**

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Pressure stability	Cartridge body: 3 bar; Superflow® 6 Resin: 9.6 bar
Elution	Biotin Elution Buffer BXT (Buffer BXT): 100 mM Tris-HCl pH 8.0, 150 mM NaCl, 1 mM EDTA, 50 mM Biotin
Regeneration	It is recommended to regenerate the column by using Strep-Tactin®XT Regeneration Buffer (3 M MgCl ₂ , Buffer XT-R Cat. No. 2-1045-250). Alternatively, freshly prepared 10 mM NaOH can be used.

* Voss, S. & Skerra, A. (1997) Mutagenesis of a flexible loop in streptavidin leads to higher affinity for the *Strep*-tag II peptide and improved performance in recombinant protein purification. *Protein Eng.* 10, 975-982.

** The drop/sec value depends on several parameters (diameter of the outlet, viscosity of the solution etc.) and, therefore, has to be determined one-time for each individual setting. Since column bodies are pressure resistant and can tolerate 3bar the columns can be used with a flow restrictor.



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