

## PureCube HiCap StrepTactin® Cartridge 1 mL & 5 mL

Product	Catalog No.	Package size
PureCube HiCap StrepTactin Cartridge (1 x 1 mL)	34301	1 x 1 mL prepacked column
PureCube HiCap StrepTactin Cartridge (5 x 1 mL)	34303	5 x 1 mL prepacked columns
PureCube HiCap StrepTactin Cartridge (1 x 5 mL)	34305	1 x 5 mL prepacked column
PureCube HiCap StrepTactin Cartridge (5 x 5 mL)	34307	5 x 5 mL prepacked columns

### Product Description

The PureCube HiCap StrepTactin® Cartridge is a chromatography column prepacked with PureCube HiCap StrepTactin Agarose. The column is stored in buffer containing 20% ethanol to prevent microbial growth. The PureCube HiCap StrepTactin Cartridge is available in two sizes, 1 mL bed volume and 5 mL bed volume (dimensions given in Product Specifications). Both column sizes exhibit excellent chemical resistance to most commonly used reagents and the End Plugs include standard connections compatible with common chromatography instruments (such as ÄKTA). The 5 mL column has two layers of mesh (coarse and fine) at one end to give excellent flow distribution. The void volume in each End Plug is minimal, because the fluid is introduced through a narrow flow path (i.e. 1 mm hole).

### Product Specifications

Parameter	PureCube HiCap StrepTactin Cartridge, 1 mL	PureCube HiCap StrepTactin Cartridge, 5 mL
Functional Group	Streptactin	Streptactin
Format	1 ml	5 ml
Dimensions [mm]	6.2 x 50	11 x 80
Column Body Material	Polypropylene	Acrylate
End Plug Material	Polypropylene	Polypropylene
Inlet/Outlet	10-32 UNF female thread	10-32 UNF female thread
Matrix	6% highly cross-linked agarose	6% highly cross-linked agarose
Particle Diameter	60-160 µm	60-160 µm
Protein Binding Capacity*	5 mg	25 mg
Max. Flow Rate	6 ml/min	6 ml/min
Recommended Flow Rate**	1.0-3.0 ml/min	1.0-3.0 ml/min
Recommended Operational Pressure	Up to 5 bar (72 psi)	Up to 3 bar (42 psi)
pH Stability	3-12	3-12

\* Protein binding capacity can vary for different proteins

\*\* Dynamic binding capacity strongly correlates with the flow rate and other parameters such as protein size and buffer conditions

## Affinity Resin

PureCube HiCap StrepTactin Agarose was developed for the affinity purification of Strep<sup>®</sup>-tagged proteins. This affinity chromatography resin is based on Superflow<sup>™</sup> resin, consisting of 6% cross-linked agarose. The material is highly porous to allow for optimal protein interaction. Cross-linked agarose is also physically very stable, making it suitable for purification processes under low pressure with variable flow rates. The matrix agarose is very homogeneous in size with a medium particle diameter of 100 µm, yielding a high degree of reproducibility between individual purification runs. StrepTactin is coupled to the agarose to generate an affinity matrix with highest binding capacity for Strep-tagged proteins and biotinylated biomolecules.

PureCube HiCap StrepTactin Agarose can be used for batch purification, as well as for low pressure column purification, and is compatible with all prokaryotic and eukaryotic expression systems. Because the purification method depends on correctly folded StrepTactin, only native conditions can be used.

## Protein Binding Capacity

PureCube HiCap StrepTactin Cartridges have a binding capacity of 5 mg/mL resin as determined by purification of recombinant protein in *E.coli* and quantified via spectrophotometry. It should be considered that the dynamic binding capacity strongly correlates with flow rate and other parameters such as protein size and buffer conditions. It is recommended to use the lowest flow rate possible to achieve highest binding capacity.

## Compatibility

PureCube HiCap StrepTactin Agarose is very stable, and the Strep-tag/StrepTactin interaction is compatible with the following conditions in most situations:

2% Tween 20, 2% Triton X-100, 2% IGEPAL<sup>®</sup> 630/Nonidet P40, 2% n-Octyl-β-D-glucopyranoside, 0.2% n-Nonyl-β-D-glucopyranoside, 0.35% n-Decyl-β-D-maltoside, 2% Lauryl-sarcosine, 0.1% SDS, 0.3% CHAPS, 1M Guanidine Hcl, 1mM PMSF, 10% ethanol, 5M NaCl, 2M (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 1M CaCl<sub>2</sub>, 25% glycerol.

## Shipping and Storage

Parameter	PureCube HiCap Streptactin Cartridge, 1 mL	PureCube HiCap Streptactin Cartridge, 5 mL
Long-term Stability	6 months after shipment	6 months after shipment
Shipment Temperature	Ambient temperature	Ambient temperature
Storage Buffer	20% ethanol, pH 6.5	20% ethanol, pH 6.5
Storage Temperature	2-8 °C	2-8 °C

## Additional Information

For protein purification protocols, including protocols for packing chromatography columns or regenerating StrepTactin agarose, please visit our webpage at [www.cube-biotech.com/protocols](http://www.cube-biotech.com/protocols). For purification of Strep-tagged proteins from dilute solutions, we recommend using PureCube HiCap Streptactin MagBeads. For purification of his-tagged proteins from dilute solutions, we recommend to use PureCube Ni-NTA MagBeads. For affinity purification of GST-tagged and rho1D4-tagged proteins, Cube Biotech offers dedicated agarose resins, magnetic beads and prepacked cartridges. Also available are a range of ultrapure detergents and buffers for extraction and purification of proteins. See [www.cube-biotech.com/products](http://www.cube-biotech.com/products) for details.

**Disclaimer:** Our products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

PureCube StrepTactin Agarose is manufactured by IBA GmbH under German Patent Application No. 42 37 113.9 entitled "Fusion peptides with binding activity for streptavidin". Trademarks: FPLC<sup>™</sup> (GE Healthcare); IGEPAL<sup>®</sup> (Rhodia); StrepTactin<sup>®</sup>, Strep-tag<sup>®</sup> (IBA GmbH); Superflow<sup>™</sup> (Sterogene Bioseparations, Inc.).