

PureCube Rho1D4 Cartridge 1 mL & 5 mL

Product	Catalog No.	Package size
PureCube Rho1D4 Cartridge (1 x 1 mL)	33301	1 x 1 mL prepacked column
PureCube Rho1D4 Cartridge (1 x 5 mL)	33306	1 x 5 mL prepacked column
Rho Starter Set 3: PureCube Rho1D4 Cartridge (1 x 1 mL) + Rho1D4 peptide (5 mg)	33399	1 x 1 mL prepacked column + 1 x 5 mg Rho1D4 peptide

Product Description

The PureCube Rho1D4 Cartridge is a column prepacked with PureCube Rho1D4 Agarose. The column is stored in buffer containing 20% ethanol to prevent microbial growth. The PureCube Rho1D4 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 Rho1D4 Cartridge, 1 mL	PureCube Rho1D4 Cartridge, 5 mL
Functional Group	Rho1D4 antibody	Rho1D4 antibody
Spacer Length	3 C-atoms	3 C-atoms
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	7.5% highly cross-linked agarose	7.5% highly cross-linked agarose
Particle Diameter	40 µm	40 µm
Protein Binding Capacity*	<3 mg	<15 mg
Max. Flow Rate	6 mL/min	6 mL/min
Recommended Flow Rate**	0.5-2.0 mL/min	0.5-2.0 mL/min
Recommended Operational Pressure	Up to 5 bar (72 psi)	Up to 3 bar (42 psi)
pH Stability	4.5-9.0	4.5-9.0
Column regeneration	Yes	Yes

* 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 Rho1D4 Agarose was developed for the affinity purification of proteins with the Rho1D4-tag (amino acid sequence TETSQVAPA). This affinity chromatography resin is based on BioWorks Workbeads, consisting of 7.5% 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. Our agarose resin is very homogeneous in size with a medium particle diameter of 40 µm, yielding a high degree of reproducibility between individual purification runs. Rho1D4 antibody is coupled to the agarose to generate an affinity matrix with highest binding capacity for rho-tagged proteins and enhanced storage stability.

PureCube Rho1D4 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.

Protein binding capacity

PureCube Rho1D4 Cartridges have a binding capacity of <3 mg/mL resin as determined by purification of a 35 kDa Rho1D4-tagged membrane protein, 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

For cleaning purposes, PureCube Rho1D4 Agarose is very stable and can resist low concentrations of detergents.

Shipping and Storage

Parameter	PureCube Rho1D4 Cartridge, 1 mL	PureCube Rho1D4 Cartridge, 5 mL
Shipment Temperature	Shipped on ice	Shipped on ice
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 and cleaning protocols, as well as guidelines for fusing proteins to the rho1D4 tag, please visit our webpage at: www.cube-biotech.com/protocols. For purification of rho1D4-tagged proteins from dilute solutions, we recommend to use PureCube Rho1D4 MagBeads. For affinity purification of GST-tagged, His-tagged or strep[®]-tagged proteins, Cube Biotech offers dedicated agarose resins, magnetic beads and pre-packed cartridges. Also available are a range of ultrapure detergents and buffers for extraction and purification of proteins. See 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.

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