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PureCube Ni-NTA Agarose

Product	Catalog No.	Package size
PureCube Ni-NTA Agarose (1 mL)	**31101**	**1 x 1 mL**
PureCube Ni-NTA Agarose (10 mL)	**31103**	**1 x 10 mL**
PureCube Ni-NTA Agarose (50 mL)	**31105**	**1 x 50 mL**
PureCube Ni-NTA Agarose (250 mL)	**31110**	**1 x 250 mL**
PureCube Ni-NTA Agarose (500 mL)	**31112**	**1 x 500 mL**

Product Description

PureCube Ni-NTA Agarose was developed for the affinity purification of proteins carrying a polyhistidine tag. This affinity chromatography matrix 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 flow rates up to 6 mL/min (optimal 0.5 – 2 mL/min). Our agarose is very homogeneous in size with a medium particle diameter of 40 µm, yielding a high degree of reproducibility between individual purification runs.

An NTA ligand is coupled to the agarose matrix and carefully loaded with nickel ions to obtain an affinity matrix with highest binding capacity for histidine residues. The metal ion capacity is > 15 µeqv Ni^{2+}/mL. Other possible metal ions are Co^{2+}, Zn^{2+}, Fe^{3+}, and Al^{3+}, resulting in different affinities, e.g. for zinc-finger proteins or phosphorylated proteins. If required, the nickel ions can be removed from the agarose matrix using 5 wash steps with 100 mM EDTA, and the matrix can be recharged with a different metal ion. Alternatively, please contact us for unloaded NTA agarose matrix.

PureCube Ni-NTA Agarose is delivered as a 50% (v/v) suspension. Therefore, 2 mL suspension will yield a 1 ml bed volume. The suspension contains 20% ethanol to prevent microbial growth.

Protein Binding Capacity

The protein binding capacity is up to 70 mg/mL, as determined by purification of 6xHis-tagged GFP protein from *E.coli* cleared lysates, and quantified via spectrophotometry.

Compatibility

PureCube Ni-NTA Agarose is very stable and can resist the following conditions in most situations: pH 2-14, 100% methanol, 100% ethanol, 8 M urea, 6 M guanidinium hydrochloride, 30% (v/v) acetonitrile.

Shipping & Storage

Shipment Temperature	Ambient temperature
Short-term Storage	In equilibration buffer (see protocol)
Long-term Storage	In 20% ethanol at 4 °C

Additional Information

For protein purification protocols, including protocols for regenerating Ni-NTA Agarose resin, please visit our webpage at: www.cube-biotech.com/protocols. For purification of his-tagged proteins from dilute solutions, we recommend using PureCube Ni-NTA MagBeads. For affinity purification of GST-tagged, rho-tagged or strep®-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 for details.