

## PureCube Cu-NTA Agarose

Product	Catalog No.	Package size
PureCube Cu-NTA Agarose (10 mL)	31403-Cu	20 mL 50% suspension
PureCube Cu-NTA Agarose (50 mL)	31405-Cu	100 mL 50% suspension
PureCube Cu-NTA Agarose (250 mL)	31410-Cu	500 mL 50% suspension
PureCube Cu-NTA Agarose (500 mL)	31412-Cu	1000 mL 50% suspension

### Product Description

PureCube Cu-NTA Agarose was developed for the affinity purification of proteins carrying a polyhistidine tag, or for the enrichment of copper-binding proteins. 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 of 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 copper ions to obtain an affinity matrix with highest binding capacity for histidine residues. The metal ion capacity is > 15 µeqv Cu<sup>2+</sup>/mL. Other possible metal ions are Ni<sup>2+</sup>, Co<sup>2+</sup>, Zn<sup>2+</sup>, Fe<sup>3+</sup>, and Al<sup>3+</sup>, resulting in different affinities, e.g. for zinc-finger proteins or phosphorylated proteins. NTA matrices loaded with these transition metals are available.

If required, the copper 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 Cu-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 varies and depends on the specific application.

### Compatibility

PureCube Cu-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 neutral buffer at 4°C
Long-term Storage	In neutral buffer with 20% ethanol at 4 °C

## **Additional Information**

For protein purification protocols, including protocols for regenerating Co-NTA Agarose resin, please visit our webpage at: [www.cube-biotech.com/protocols](http://www.cube-biotech.com/protocols). For purification of proteins from dilute solutions, we recommend using PureCube Cu-NTA MagBeads. For affinity purification of GST-tagged, rho-tagged or strep<sup>®</sup>-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 membrane 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.

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**Proteins are our passion.**