

## PureCube Ni-NTA MagBeads

Product	Catalog No.	Package size
PureCube Ni-NTA MagBeads (1 mL)	31201	1 x 1 mL
PureCube Ni-NTA MagBeads (5 mL)	31205	1 x 5 mL
PureCube Ni-NTA MagBeads (25 mL)	31225	1 x 25 mL
PureCube Ni-NTA MagBeads (4 x 25 mL)	31290	4 x 25 mL

### Product Description

PureCube Ni-NTA MagBeads were developed for the affinity purification of proteins carrying a polyhistidine tag. The affinity matrix is based on spherical magnetic agarose beads, consisting of 6% cross-linked agarose. The material is highly porous to allow optimal protein interaction. Cross-linked agarose is also physically very stable, making it suitable for purification processes without deformation or destruction. Our magnetic beads are very homogeneous in size with a medium particle diameter of 30  $\mu\text{m}$ , yielding a high degree of reproducibility between individual purification runs.

An NTA ligand is coupled to the agarose and carefully loaded with nickel ions to obtain a matrix with highest binding capacity for histidine residues. The metal ion capacity is  $> 12 \mu\text{eqv Ni}^{2+}/\text{mL}$ . Other possible metal ions are  $\text{Co}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Fe}^{3+}$ ,  $\text{Al}^{3+}$ , and  $\text{Cu}^{2+}$ , resulting in different affinities, e.g. for zinc-finger proteins or phosphorylated proteins. If required, the nickel ions can be removed from the magnetic beads using 5 wash steps with 100 mM EDTA, and the magnetic beads can be recharged with a different metal ion. Alternatively, please contact us for unloaded PureCube NTA magnetic beads.

PureCube Ni-NTA MagBeads are delivered as a 25% suspension. Therefore, 1 mL suspension will yield a 250  $\mu\text{L}$  bed volume. The suspension contains 20% ethanol to prevent microbial growth.

### Protein Binding Capacity

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

### Compatibility

PureCube Ni-NTA MagBeads are very stable and can resist the following conditions in most situations: pH 2-4, 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, please visit our webpage at: [www.cube-biotech.com/protocols](http://www.cube-biotech.com/protocols). For purification of his-tagged proteins with gravity flow columns and low pressure chromatography, we recommend using PureCube Ni-NTA Agarose Resin. 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 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.**