

PureCube NTA MagBeads

Product	Catalog No.	Package size
PureCube NTA MagBeads (1 mL)	31801	1 x 1 mL
PureCube NTA MagBeads (5 mL)	31805	1 x 5 mL
PureCube NTA MagBeads (25 mL)	31825	1 x 25 mL
PureCube NTA MagBeads (4 x 25 mL)	31890	4 x 25 mL

Product Description

PureCube 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 µm, 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 µeqv Ni²⁺/mL, when loaded with nickel. Other possible metal ions are Co²⁺, Zn²⁺, Fe³⁺, Cu²⁺, or Al³⁺, resulting in different affinities, e.g. for zinc-finger proteins or phosphorylated proteins. If required, the metal 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.

PureCube NTA MagBeads are delivered as a 25% suspension. Therefore, 1 mL suspension will yield a 250 µL bed volume. The suspension contains 20% ethanol to prevent microbial growth.

Protein Binding Capacity

The protein binding capacity is 40 mg protein per mL settled beads, as determined by purification of 6xHis-tagged GFP protein from *E.coli* cleared lysates, and quantified via spectrophotometry.

Compatibility

PureCube 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. For purification of his-tagged proteins with gravity flow columns and low pressure chromatography, we recommend using PureCube NTA Agarose. For affinity purification of GST-tagged, rho-tagged or strep[®]-tagged proteins, Cube Biotech offers dedicated agarose resins, magnetic beads and prepacked cartridges are available from Cube Biotech. 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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Proteins are our passion.