

PureCube Co-NTA MagBeads XL

Product	Catalog No.	Package size
PureCube Ni-NTA MagBeads XL (5 mL)	55505	1 x 5 mL
PureCube Ni-NTA MagBeads XL (25 mL)	55525	1 x 25 mL
PureCube Ni-NTA MagBeads XL (4 x 25 mL)	55590	4 x 25 mL

Product Description

PureCube Co-NTA MagBeads XL 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 90 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 $> 12 \mu\text{eqv Ni}^{2+}/\text{mL}$. Other possible metal ions are Ni^{2+} , Zn^{2+} , Fe^{3+} , Al^{3+} , and 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 XL.

PureCube Co-NTA MagBeads XL 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 ~ 20 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 Co-NTA MagBeads XL are 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.

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, 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 Ni-NTA Agarose Resin. 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.

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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