

## PureCube 100 NTA Agarose

Product	Catalog No.	Package size
PureCube 100 NTA Agarose (10 mL)	74703	20 mL 50% suspension
PureCube 100 NTA Agarose (50 mL)	74705	100 mL 50% suspension
PureCube 100 NTA Agarose (250 mL)	74710	500 mL 50% suspension
PureCube 100 NTA Agarose (500 mL)	74712	1000 mL 50% suspension

### Product Description

PureCube 100 NTA Agarose was developed for the affinity purification of proteins carrying a polyhistidine tag. This affinity chromatography matrix is based on 6% cross-linked agarose. The material is highly porous to allow for optimal protein interaction, with a size exclusion limit for globular proteins of  $4 \times 10^6$  Da.

The novel PureCube 100 Agarose has excellent properties in batch and column purification, including purification processes under low pressure (FPLC®). At 15 cm bed height, maximum flow rate is  $\geq 1000$  cm/h, and maximum pressure  $\geq 300$  kPa. PureCube 100 agarose beads have a particle diameter of 50-150  $\mu\text{m}$ .

An NTA ligand is coupled to the agarose matrix. It can be loaded with various metal ions, e.g.  $\text{Ni}^{2+}$ ,  $\text{Co}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Fe}^{3+}$ , and  $\text{Al}^{3+}$ , resulting in different affinities, e.g. for his-tagged proteins, zinc-finger proteins or phosphorylated proteins. If required, the metal 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 NTA agarose matrices preloaded with different metals. The metal ion capacity is 15  $\mu\text{eqv Ni}^{2+}/\text{mL}$ .

PureCube 100 NTA Agarose is delivered as a 50% (v/v) suspension so that 2 mL of suspension 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 80 mg/mL, as determined by purification of 6xHis-tagged GFP protein from *E.coli* cleared lysates, and quantified via spectrophotometry. Proteins are eluted with high purity.

### Compatibility

PureCube 100 NTA Agarose is very stable and can resist the following conditions in most situations: pH 3-13, 100% methanol, 100% ethanol, 8 M urea, 6 M guanidinium hydrochloride, 30% (v/v) acetonitrile, 10 mM DTT, 1 mM EDTA, 1 M NaOH.

### Shipping & Storage

Shipment Temperature	Ambient temperature
Short-term Storage	In neutral buffer
Long-term Storage	In neutral buffer with 20% ethanol at 4 °C

## **Additional Information**

For protein purification protocols, including protocols for regenerating NTA Agarose resin, please visit our webpage at: [www.cube-biotech.com/protocols](http://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](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.

Trademarks: FPLC® is a trademark of GE Healthcare.

---

**Proteins are our passion.**