Fastback Co IMAC Resin
Datasheet

Fastback Co IMAC Resin designed for affinity purification of polyhistidine tagged proteins. Cobalt ions are carefully loaded onto an agarose matrix via an iminodiacetic acid (IDA) coupled ligand to obtain a stable affinity matrix with a high binding capacity for histidine residues (up to 10 mg/ml determined from *E.coli* cleared lysate).

Other metal ions such as Ni^{2+}, Cu^{2+}, and Zn^{2+} can also be used resulting in different affinities. If required, the Nickel ions can be removed from the agarose matrix using 5 wash steps with 100 mM EDTA, and the matrix recharged with a different metal ion.

Specifications

Specificity:	Polyhistidine tag
Matrix:	Agarose
Coupled ligand:	Iminodiacetic acid (IDA)
Binding capacity:	10 mg/ml
Bead size:	45-165 µm
Flow rate:	0.25-2 ml/min
Maximum pressure:	42 psi
Buffer compatibility:	Common aqueous buffers from pH 2-12
Cleaning buffer examples:	30% ethanol, 1 M NaOH, 0.01 M HCl, 8 M urea, 6 M guanidinium hydrochloride
Shipping/delivery:	50% (v/v) resin suspension in 20% Ethanol at ambient temperature
Storage:	Equilibration buffer at 2-8°C (short-term) 20% ethanol at 2-8°C (long-term)

Ordering Information:

Product	Volume	Order Code
Fastback Co IMAC Resin (10 ml)	10 ml	Fastback-Co-10
Fastback Co IMAC Resin (25 ml)	25 ml	Fastback-Co-25
Fastback Co IMAC Resin (100 ml)	100 ml	Fastback-Co-100

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Performance Data

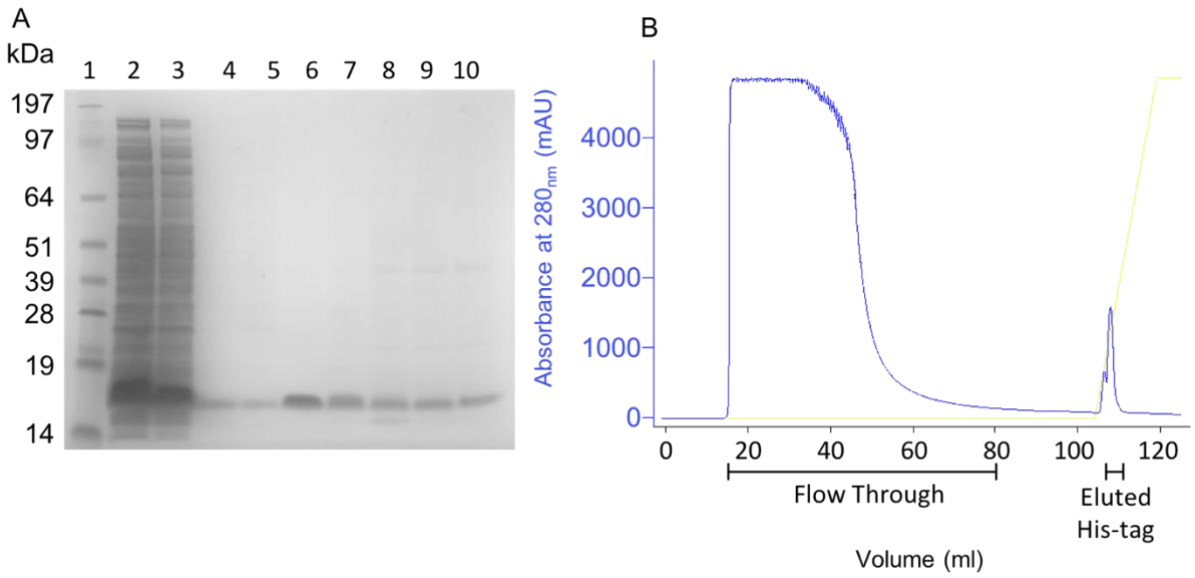

Figure 1. Recombinant His-tagged protein purified from *E.coli* lysate using Protein Ark Fastback Co resin packed in 1ml HiFliQ and analyzed via Nu-PAGE >95%. (A) 1. Markers, 2. Starting material, 3. Flow-through, 4. Wash, 5. Elution I, 6. Elution II, 7. Elution III, 8. Elution IV, 9: Elution V, 10: Elution VI. (B) Chromatogram of gradient purification.

Sample	15ml *E.coli* lysate containing overexpressed recombinant His-tagged protein
Column	Protein Ark Fastback Co packed in 1ml HiFliQ FPLC column
Flow rate	1ml/min
Binding Buffer	50mM Tris/150mM NaCl pH8.5
Elution Buffer	300mM imidazole pH8.5
Eluted Protein	3.8mg

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Fastback Co IMAC Resin (25 ml)	25 ml	Fastback-Co-25
Fastback Co IMAC Resin (100 ml)	100 ml	Fastback-Co-100

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