TALON Superflow resin

Product Information

Cat#No#	TA-407C

Product Overview

TALON Superflow is a cobalt-based IMAC resin that offers a high-specificity alternative to nickel-charged resins for purifying histidine-tagged proteins.
High specificity – designed for histidine-tagged (his-tagged) purification of recombinant proteins when purity is more important than yield.
Different selectivity compared to nickel-charged resins – an alternative to nickel affinity resins when a different metal ion is required.

Description

TALON Superflow is a cobalt-based immobilized metal affinity chromatography medium (IMAC) offering enhanced selectivity for histidine-tagged proteins compared to nickel-charged media. TALON Superflow is available in 10 ml and 50 ml lab packs, and prepacked in a range of columns and 96-well plates. Prepacked HiTrap TALON crude, His GraviTrap TALON, His SpinTrap TALON, and His MultiTrap TALON enable different throughput and scales from screening in low microgram scale to milligram preparative purification of histidine-tagged recombinant proteins by IMAC.

Characteristic

Suitable for IMAC screening and purification of histidine-tagged proteins when Ni2+ is not the optimal choice of metal ion.
Compatible with commonly used IMAC reagents and appropriate for purifying proteins under native or denaturing conditions.
HiTrap TALON crude and His GraviTrap TALON save time by allowing the application of unclarified samples directly, minimizing labor and degradation of proteins.
His SpinTrap TALON and His MultiTrap TALON enable screening with highly reproducible results column-to-column and well-to-well.
High purity in one step using a mild purification process that preserves structure and function of sensitive histidine-tagged proteins.

Packing Column

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.com
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

TALON Superflow resin

TALON Superflow is supplied preswollen in 20% ethanol. Prepare a slurry by decanting the 20% ethanol solution and replacing it with distilled water in a ratio of 75% settled medium to 25% distilled water.

Matrix
Cross-linked agarose, 6%
Particle Size
60 µm-160 µm
Ligand
TALON Superflow Cobalt-IMAC
Dynamic binding capacity
Up to 20 mg histidine-tagged protein
Chemical compatibility
Stable in all commonly used buffers, detanurants, and detergents.
pH working range
3–12
CIP stability
2–14
Storage
4°C to 8°C
Binding buffer
50 mM sodium phosphate, 300 mM NaCl, pH 7.4.
Elution buffer
50 mM sodium phosphate, 300 mM NaCl, 150 mM imidazole, pH 7.4.
Regeneration
1. Strip the TALON Superflow/HiTrap TALON crude of cobalt ions by washing with 10 bed/column volumes of

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0.2 M EDTA, pH 7.0.
2. Wash excess EDTA from the medium with an additional 10 bed/ column volumes distilled water
3. Charge the chromatography medium with 10 bed/column volumes of 50 mM CoCl2 solution.
4. Wash with 7 bed/column volumes of distilled water followed by 3 bed/column volumes of 300 mM NaCl and by 3 bed/column volumes of distilled water to remove excess cobalt metal ions.
5. Equilibrate with 10 bed/column volumes of binding buffer.

Purification procedures

1. Fill the pump tubing or syringe with distilled water. Remove the stopper and connect the column to the chromatography system tubing, syringe (use the adapter provided) or laboratory pump "drop-to-drop" to avoid introducing air into the system.
2. Remove the snap-off end at the column outlet.
3. Wash out the ethanol with 3 to 5 column volumes of distilled water.
4. Equilibrate the column with at least 5 column volumes of binding buffer. Recommended flow rates are 1 ml/min or 5 ml/min for the 1 ml and 5 ml columns, respectively.
5. Apply the unclarified lysate with a pump or a syringe. Continuous stirring of the sample during sample loading may be necessary to prevent sedimentation.
6. Wash with wash buffer until the absorbance reaches a steady baseline (generally at least 15 to 20 column volumes).
7. Elute with elution buffer using a one-step procedure or a linear gradient.

Pack size

10 mL

Maximum flow velocity

2000 cm/h

Wash buffer

50 mM sodium phosphate, 300 mM NaCl, 5 mM imidazole, pH 7.4.

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