GENEFLOW IMAC SuperSpin ™ Tubes Information

- **Rapid Purification of Histidine-Tagged Proteins**
- **High protein binding capacity of up to 800µg**
- **Very low cost in comparison to similar products in the marketplace**
- **Simple optimization of the binding, washing and elution conditions**
- **Process up to 1.5ml sample volume**
- **High protein purity is achieved in a single step**

With a patented novel technology (patent pending), IMAC SuperSpin ™ tube is supplied as an economical, single use disposable device that allows rapid purification and screening of histidine-tagged proteins.

The spin tube is filled with novel metal immobilised chromatography resin of small particles (20 – 50 µm). It gives very fast mass transfer rate of target proteins ensuring that a substantial quantity of protein can be captured in a short solid / liquid contact time. Four types of spin tubes are available as Ni SuperSpin ™, Cu SuperSpin ™, Co SuperSpin ™ and Zn SuperSpin ™ for fast screening of the best immobilised metal ion to a given target protein. It is a particularly powerful tool in applications such as small-scale purification, high-throughput screening and purification process optimization.

The fine IMAC particles are very stable and compatible with a variety of chemical reagents (eg denaturing reagents and reducing reagents)

Characteristics and Compatibility

The IMAC resin supplied has the characteristics listed in Table 1. It is very stable and compatible with a variety of chemical reagents as listed in Table 2. The leakage of metal ion is negligible.

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Table 1

Characteristics of Ni SuperSpin™/Cu SuperSpin™/Co SuperSpin™/ Zn SuperSpin™

Tube material	Polypropylene
Medium	IMAC SuperSpin ™
Particle size	20 – 50 μm
Packed volume	50 μl
Protein binding capacity	Depends on the type of proteins and binding conditions; >800ug*
Chemical compatibility	Stable in the commonly used buffers and denaturing reagents, avoid chelating reagents e.g. EDTA, EGTA and citrate, see Table 2 for details
Storage condition	4°C for the resin

*Tested with nickel ion charged

Table 2

Chemical compatibility*

Chelating reagents	EDTA, EGTA	Up to 1 mM, but care should be taken with chelating reagents. It may be added to the samples rather than directly to the binding buffers
Denaturing reagents	GuHCl Urea	Up to 6 M Up to 8 M
Detergents	Triton X-100 Tween-20 NP-40 CHAPS	Up to 2% v/v Up to 2% v/v Up to 2% v/v Up to 1%

*Tested with nickel ion charged

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