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Ni-NTA resin Slurry

To purify recombinant proteins that contain polyhistidine

Cat # ☐ **PUR10-25** ☐ **PUR10-25-S**
Pack Size: ☐ **25 ml,** ☐ **5mL**
Storage: 4°C

Recombinant proteins produced in bacterial, insect, and mammalian cells from any 6xHis-tagged vector can be purified using Ni-NTA agarose. High affinity and selectivity for 6xHis-tagged recombinant fusion proteins are displayed by the resin. Using Ni-NTA Agarose, proteins can be purified under native, denaturing, or hybrid conditions. By using a buffer with a low pH or by competing with imidazole or histidine, proteins bound to the resin are released. The finished proteins can be used in the intended applications after dialysis with suitable buffer.

Ni-NTA Nitrilotriacetic acid (NTA), a tetradentate chelating ligand, is used in the 6% agarose matrix of agarose. Four coordination sites on NTA allow it to bind Ni^{2+} ions.
Binding capacity of Ni-NTA Agarose: 5–10 mg of protein per mL of resin

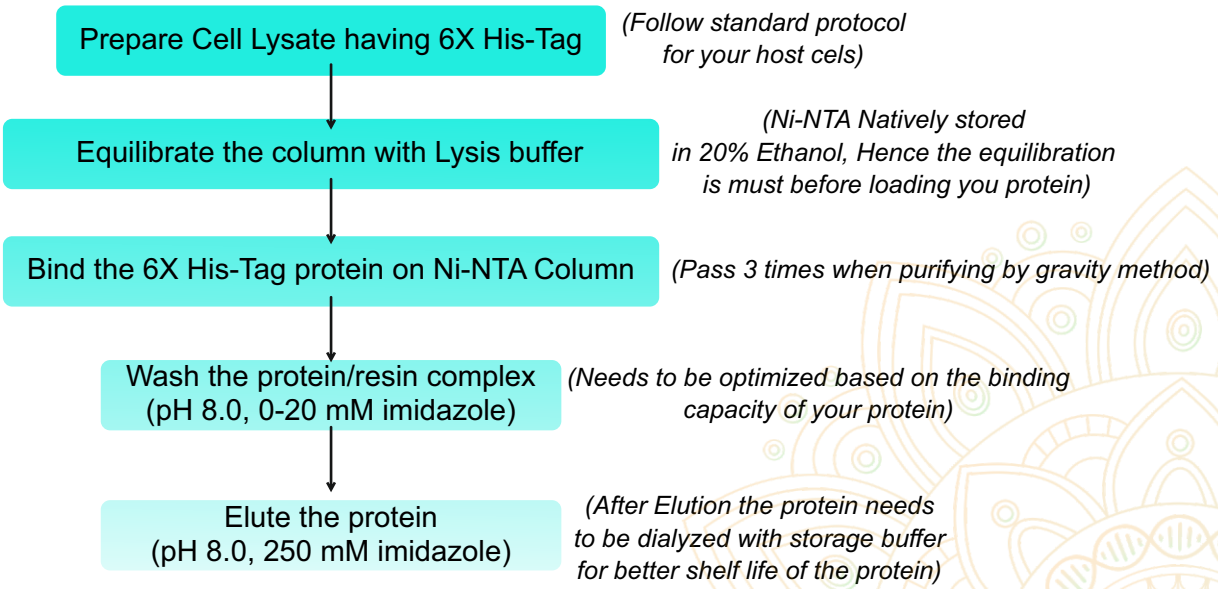
Note: Based on the binding property of your protein , every protocol should be optimised to achieve maximum purity.

The solubility of the protein and the requirement to maintain biological activity for subsequent applications determine whether to purify 6xHis-tagged proteins under native or denaturing conditions.

• If you wish to maintain protein activity and your protein is soluble (found in the supernatant following lysis), use native conditions.

• If the protein is insoluble (in the pellet following lysis) or if your downstream application does not rely on protein activity, use denaturing conditions. If your protein is insoluble but you still want to maintain protein function, use the hybrid procedure. Native buffers are used to refold the protein after the lysate and columns have been prepared under denaturing conditions. Be aware that not all proteins may have their activity restored by this treatment.

Protocol



Note the Ni-NTA can be regenerated at least 6 times using standard regeneration protocol.