Product information

General nanoCLAMP(Resin) product information, v 1.0

Volume of Resin:	1.5 ml of 50% slurry (750 µl packed resin)
Support:	6% crosslinked beaded agarose
Conjugation:	12 atom spacer arm linked with thioether bond to nanoCLAMP
Storage buffer:	20 mM MOPS, 150 mM NaCl, 1 mM $CaCl_2$, pH 6.5 with 0.04% Proclin300
Binding capacity:	Product specific – see Lot information at nectagen.com
Stability / Storage:	Resin is stored in slightly acidic MOPS buffer with Proclin 300 preservative. Stable at 4°C for at least 6 months. Do not freeze.

Protocol for one-step purification from *E. coli* lysates

1. Transfer 100 µl of 50% slurry of nanoCLAMP(Resin) to a small chromatography column and wash resin three times with 500 µl PBS.
2. Add cleared lysate containing the nanoCLAMP antigen, cap top and bottom of column, and incubate at 4°C rotating for 1 h. Lysates should be cleared of insoluble material by centrifugation, at near neutral pH (Resin tolerates detergents such as those found in BPER (Thermo) and RIPA lysis buffer) Note: nanoCLAMPs typically bind between 20 and 250 nmol/ml resin, depending on antigen and binding conditions. See certificate of analysis (nectagen.com) for lot-specific measured binding capacity.
3. Drain flow through (do not let resin run dry).
4. Wash resin four times with 500 µl PBS or PBS-T (up to 0.05% Tween 20).
5. Elute resin with 100 µl PEB four times, or until protein is completely eluted.
6. To regenerate column, wash four times with 500 µl DB, then refold nanoCLAMP by washing two times 500 µl MBS, then wash four times with MBS + 1 mM $CaCl_2$. Add azide to 0.05% and store at 4°C.

Materials Required

- Disposable 1 - 2 ml chromatography column with top and bottom caps
- Phosphate buffered saline (**PBS**): 20 mM NaH_2PO_4, 150 mM NaCl, pH 7.4
- **PBS-T**: PBS supplemented with 0.05% Tween20
- *E. coli* lysate, cleared of insoluble material by centrifugation, at near neutral pH (CR tolerates detergents such as those found in BPER (Thermo) and RIPA lysis buffer)
- Polyol elution buffer (**PEB**): 10 mM Tris, 1 mM EDTA, 0.75 M $(NH_4)_2SO_4$, 40% propylene glycol, pH 7.9
- Denaturing buffer (**DB**): 6 M guanidine-HCl, 100 mM NaH_2PO_4, pH 8
- Mops buffered saline (**MBS**): 20 mM MOPS, 150 mM NaCl, pH 6.5
- Sodium azide

Product References