

ANC01

Custom Conjugated GSH Gold Nanoparticles for pulling out GST proteins from bacterial lysates

Product Information:

Nanopartz™ has developed and optimized custom conjugated gold nanoparticles specifically for *in vitro* applications. These gold nanoparticles have a covalently attached polymer shell which can then be covalently attached to GSH, oriented in a way to optimize GSH binding to GST. This type of result would be similar in many small antibody applications where orientation is very important.

| Product | Gold size | Volume | Storage |
|--|-----------|--------|---|
| GSH conjugated gold nanoparticles for in vitro | 20nm | 1mL | Store at 4°C (Use within 3 months) |

Important Information:

- GSH Conjugated Nanopartz gold Nanoparticles are perfect for pulling out GST proteins from bacterial lysates.
- Store Organic Gold Nanoparticles at 4°C

General Protocol

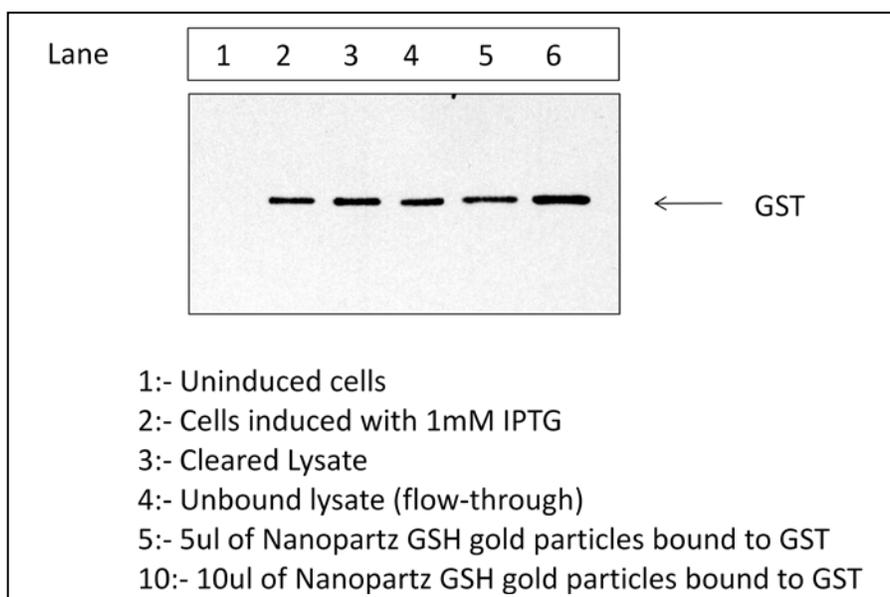


Fig. 1 Attached is a file showing a Western blot of GST protein bound to the 20nm Nanopartz Gold GSH particles. Lane 1 shows bacteria un-induced whereas lane 2 shows GST protein induction with 1mM IPTG after 3hrs at 37°C. The bacteria were pelleted and a cleared lysate made (Lane 3). The Nanopartz gold GSH particles were incubated with the lysate and then particles plus bound protein was pelleted. A sample of lysate post-binding was run (Lane 4) showing unbound protein left in the lysate. 5ul and 10ul of GST bound gold particles was ran (Lanes 5 & 6) which shows that the GST protein has bound really well.

Observations

What the Western blot is showing is that the Nanopartz Gold GSH particles can efficiently “pull” out GST proteins from bacterial lysates. This is a technique which is normally used with GSH coated agarose beads, however with the gold particles it can allow the customer to visualise specific proteins via Scanning Electron Microscopy.