Rapid GST Inclusion Body Solubilization and Renaturation Kit Assay Kit

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CATALOG #
AAA44545

PRODUCT SYNONYMS

Rapid GST Inclusion Body Solubilization and Renaturation Kit; Rapid GST Inclusion Body Solubilization and Renaturation Kit assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage	Store all kit components at room temperature.

IMAGES

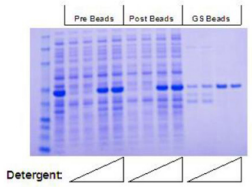

Figure 2 – Solubilization and Renaturation of GST-RTK fusion protein. GST-RTK expression was induced with 1 mM IPTG at 37°C for 4 hrs. Cell pellet was lysed, and inclusion body was solubilized and renatured under different amounts of detergent solubilization solution according to the assay protocol. Lane 1: MW STD; Lane 2: Whole E.Coli lysate; Lane: 3, 7, 11: No detergent; Lane 4, 8, 12: 32-fold dilution; Lane 5, 9, 13: 8-fold dilution; Lane 6, 10, 14: 2-fold dilution.

Application Data

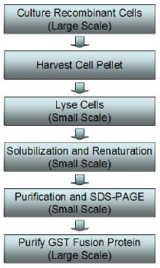

Figure 1 – GST Inclusion Bodies Solubilization and Renaturation Flow Chart

Application Data

ADDITIONAL INFORMATION

Related Product Information for Rapid GST Inclusion Body Solubilization and Renaturation Kit assay kit	**Background:** Bacteria are widely used for His or GST tagged recombinant protein expression. GST fusion proteins in soluble form are purified from bacterial lysates by affinity chromatography using immobilized glutathione. However, recombinant proteins expressed in bacteria often form inclusion bodies, especially when they are expressed at high levels. It is not known exactly how they are formed, but it is thought that the protein within the inclusion body is partially or incorrectly folded. Once these inclusion bodies are formed, it is very difficult to solubilize them in a native, active conformation. The Rapid GST Inclusion Body Solubilization and Renaturation Kit is designed to retrieve expressed GST fusion protein in soluble form after lysis and extraction procedures. The detergent solubilization and neutralization reagents contained in the kit provides the most effective means for solubilizing and renaturing aggregated proteins without lengthy dialysis steps. The solubilization and neutralization steps only take 2 hrs (see Figure 1). The kit provides enough reagents for solubilizing and renaturing up to 5-10 liters of bacterial culture.
Product Categories/Family for Rapid GST Inclusion Body Solubilization and Renaturation Kit assay kit	Cell Signaling and Protein Biology; Protein Analysis Tools; GST Protein Inclusion Body Solubilization
References	1. Shin SI, GST Gene Fusion System Handbook, Amersham Biosciences, Code No. 18-1157-58. 1. Keller, D. et al. (2014). Mechanisms of HsSAS-6 assembly promoting centriole formation in human cells. J. Cell Biol. 204:697-712. 2. Lalani, S. et al. (2013). MCTP2 is a Dosage-Sensitive Gene Required for Cardiac Outflow Tract Development. Hum. Mol. Genet. 10.1093/hmg/ddt283. 3. Sabbah, M. et al. (2011). CCN5, A Novel Transcriptional Repressor of Transforming Growth Factor-beta Signaling Pathway. Mol. Cell. Biol. 10.1128/MCB.01316-10.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://www.aaabiotech.com/assay-kits/rapid-gst-inclusion-body-solubilization-and-renaturation-kit/44545