

Product Specification Sheet

Recombinant Glutathione Transferase-Human Ubiquitin(GST-Ub) Fusion Protein

Cat. GST14-R Recombinant purified **GST-Ub fusion** protein **SIZE:** 100 ug
FORM: Soln Lyophilized;

Expression of genes in E. coli or yeast or baculovirus offers a convenient system to produce large amounts of recombinant proteins that may otherwise be difficult to isolate from natural cells and tissues. Very often antibodies to these newly identified proteins are not available to study its biochemical properties, monitor protein expression, and purification. In order to circumvent this problem, short pieces of well-defined peptides (Poly-His, Flag-epitope or c-myc epitope or HA-tag) or small proteins (bacterial GST, MBP, Thioredoxin, b-Galactosidase, VSV-Glycoprotein etc) are often cloned along with the target gene. Proteins are expressed as fusion proteins. Antibodies to these fusion-tags are already available to monitor fusion protein expression and purification. Therefore, fusion-tags serve as universal tags much like secondary antibodies. Many tags have their own characteristics. Poly-His-fusion proteins (6 x His) can bind to Nickel-Sepharose or Nickel-HRP. GST-fusion proteins can bind to glutathione-Sepharose. Therefore, a high degree of purification of fusion protein can be achieved in just one affinity purification step. Purity of fusion proteins can be followed by Tag-antibodies. Very often, fusion proteins are directly injected into animals to generate antibodies. Some fusion tags can be removed later by treatment with enzymes to generate tag-free recombinant proteins.

Fully functional ubiquitin with an N-terminal GST-tag (glutathione S-transferase, E. coli). GST-Ub fusion protein may be useful for glutathione affinity purification of ubiquitinated molecules and allows for immunodetection of conjugates using GST or Ubiquitin antibodies. Facilitates the facile visualization of poly-Ub chains due to larger ladder intervals.

Source of Antigen

Bacterial GST protein (27 kda) was expressed as human ubiquitinating fusion protein in E. coli and purified (>95%). Purified GST-Ub protein (**Cat # GST14-R**) is supplied in 50 mM HEPES, pH 8.0, 0.1M NaCl (see lot sp conc on the vial) in liquid or powder form. Reconstitute powder in PBS or other buffers at a desired concentration. Store reconstituted solution at -20°C in suitable size aliquots. Do not freeze and thaw.

Recommended Usage

GST-Ub # GST14-R can be used as a control protein in ELISA or Western for both ubiquitin or GST antibodies. Optimum concn for Western is 50-200 ng/lane and for ELISA 1-5 ug/ml (coating).

Typical in vitro concentrations for non rate-limiting conjugate formation is 20-100 µM depending on conditions. Supplementation with ubiquitin may be necessary for best results in forming high molecular weight conjugates.

This product is for in vitro research use only.

Related material available from ADI

Purified GST, Monoclonal anti-GST, Polyclonal Rabbit and Goat GST antibodies

Anti-ubiquitin and purified bovine and human ubiquitin proteins

GST Coated ELISA plates; Anti-Rabbit HRP conjugates'

GST or GST fusion protein ELISA kit

Western blot Recycling Kit; Strips antibodies in 5-10 min at room temp.

GST14-R

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