

Product Specification Sheet

Anti-GST-HRP, -AP, -Biotin, -FITC Conjugates

Cat. GST13-A	Goat Anti-GST IgG	SIZE: 100 ul
Cat. GST13-HRP	Goat Anti-GST IgG-HRP Conjugate	SIZE: 100 ul
Cat. GST13-BTN	Goat Anti-GST IgG-Biotin Conjugate	SIZE: 100 ul
Cat. GST13-AP	Goat Anti-GST IgG-AP Conjugate	SIZE: 100 ul

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.

Source of Antigen and Antibodies

Cat# GST13-A, unlabeled

Bacterial GST (*Schistosoma japonicum*, ~27 kda) was expressed in E. coli and purified (>97%). Purified GST was injected into **goats** to produce high titer polyclonal antibodies. Antibodies (IgG) were purified by delipidation, salt fractionation, and ion-exchange (IgG) (**cat # GST13-A**). It is supplied in PBS, pH 7.4 at 1 mg/100 ul in liquid or powder form. Dissolve in 100 ul water and use at 1:1K-1: 5K for Western and 1:1K-: 10K for ELISA. Purified antibody was coupled to AP, HRP, Biotin and FITC.

Suggested 2-ab

Rabbit Anti-goat IgG-HRP conjugate Cat # 30220 (AP, biotin, FITC conjugates also available)

-ve control IgG

20011-1, Goat (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Cat# GST13-HRP, HRP Conjugate

Anti-GST IgG was coupled to horse radish peroxidase, HRP (**Cat # GST13-HRP**) using glutaraldehyde method.

Antibody:HRP molar ratio is ~1.0-1.5). Anti-GST-HRP conjugate is supplied at 1 mg/100 ul in PBS, pH 7.4 containing 0.01% thiomersal as preservative. Do not add azide as it inhibits HRP activity. Store at 2-4oC for 2-4 weeks and at -20oC in suitable aliquots for long term storage. Do not store diluted (working solution) for more than a few hours.

Cat# GST13-BTN, Biotin Conjugate

Anti-GST IgG was coupled to biotin (**Cat # GST13-BTN**) using NHS-Biotin. Biotin to protein ration is 10-20 biotin per IgG molecule. It is supplied in PBS pH 7.4 containing 0.05% azide and 1% BSA at 1 mg/100 ul. Store at 2-4oC for 2-4 weeks and at -20oC in suitable aliquots for long term storage. For western, use at 1:1K-1:10K and for ELISA 1:5K-1:50K. Do not store diluted (working solution).

Cat# GST13-FITC, FITC Conjugate

Anti-GST IgG was coupled to FITC (**Cat # GST13-FITC**). FITC to protein ration is 3-4 FITC per IgG molecule. It is supplied in PBS pH 7.4 containing 0.05% azide and 1% BSA at 1 mg/100 ul. Store at 2-4oC for 2-4 weeks and at -20oC in suitable aliquots for long term storage. For immunofluorescence, use 1:100-1:1000. Do not store diluted (working solution).

Antibody concentration must be optimized for each application under defined experimental conditions.

Specificity

Purified recombinant GST protein is available to optimize the antibody dilution and use as positive control for western (Cat #GST11-C) or ELISA (#GST11-R).

This product is for in vitro research use only.

Related material available from ADI

Purified GST, Monoclonal anti-GST, GST Coated ELISA plates; Anti-Goat HRP conjugates'

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

GST13-A-HRP-BTN-AP 71215A

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