

# LABGEN™

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## **GST AfP antibody**

**Glutathione-S-transferase Affinity purified, Polyclonal Rabbit Antibody**

Catalog No. 10-190

### **Type:**

Polyclonal Rabbit Antibody

### **Introduction:**

GST family of enzymes comprises a long list of cytosolic, mitochondrial, and microsomal proteins that are 45-55 kDa (dimer form) size and are capable of multiple reactions with a multitude of substrates, both endogenous and xenobiotic. GST catalyses the conjugation of reduced glutathione meaning the sulfhydryl group, to electrophilic centers on a wide variety of substrates. This activity is useful in the detoxification of endogenous compounds such as peroxidised lipids, as well as the metabolism of xenobiotics. GST binds toxins and function as transport protein. Glutathione S-transferase is used to create the so-called 'GST gene fusion system'. The GST is used to purify and detect proteins of interest. In a GST gene fusion system, the GST sequence is incorporated into an expression vector alongside the gene sequence encoding the protein of interest. Induction of protein expression from the vector's multiple cloning sites results in expression of a fusion protein - the protein of interest fused to the GST protein. This GST-fusion protein can then be purified from cells via its high affinity for glutathione. Fusion proteins offer an important biological assay for direct protein-to-protein interactions. The GST tag has the size of 220 amino acids, which, compared to other tags like the myc- or the FLAG-tag, is quite big. It is fused to the N-terminus of a protein. However, many commercially-available sources of GST-tagged plasmids include a thrombin domain for cleavage of the GST tag during protein purification. A GST-tag is often used to separate and purify proteins that contain the GST-fusion. GST-fusion proteins can be produced in Escherichia coli, as recombinant proteins.

### **Description:**

Polyclonal antibody to recombinant glutathione-S-transferase (GST) was raised by immunizing rabbits with affinity purified GST. The protein was expressed in bacteria and purified by glutathione-affinity chromatography. From the crude serum, antigen-specific antibodies were purified by antigen-affinity chromatography. The product is provided as antigen-affinity purified IgG, with 0.05 % sodium azide as a preservative.

### **Specificity:**

The monospecific polyclonal IgG antibody against GST recognises recombinant GST. It reacts specifically to a variety of GST fusion proteins used as targets in immunoblotting experiments. It also immunoprecipitates the target proteins efficiently. This antibody is reactive with immobilized native antigens on ELISA plates as well.

### **Uses:**

Polyclonal antibody against GST may be used for the capturing of GST fusion proteins using various immunochemical assays including immunoblotting, dot blotting, immunoprecipitation, ELISA and immunohistochemistry (immunofluorescence or immuno-enzymatic staining).

### **Storage:**

For continuous use, store at 2-8 °C. For extended storage freeze, in desirable aliquots. Repeated freezing and thawing is not recommended.

### **Concentration:**

1mg/1ml

### **Recommended Dilution:**

Western Blotting : 1/10,000

ELISA : 1/200,000

**Note:**

The above dilution may vary with different GST fusion proteins. Therefore, the optimal working dilution may have to be determined for best results

**Usage:**

LABGEN's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.