

Mouse Anti-GST Clone 5A7 mAb

Catalog No. CMAB1001

Lot No: 1U00601

Quantity: 100 µg

Description: The GST family of enzymes comprises a long list of cytosolic, mitochondrial, and microsomal proteins that are 45-55 kDa (dimer form) in 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 functions as a transport protein. Glutathione S-transferase is used to create the so-called 'GST gene fusion system'. The GST is used to detect and purify 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 target proteins that contain the GST-fusion. GST-fusion proteins can be produced in *E. coli*, as recombinant proteins.

Concentration: 0.5 mg/mL

Host: Mouse

Isotype: IgG2b

Clone: 5A7

Formulation: Liquid in PBS + 50% Glycerol

Applications: WB, IP

Application Notes: Recommended dilution for WB: 1.0 µg/mL
The optimal concentration should be determined by the user for each specific application.

Storage & Stability: Store at -20°C. **Avoid repeated freeze-thaw cycles.**

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