

BACKGROUND

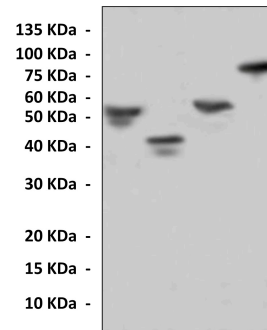
GST is commonly used to create fusion proteins.¹ The tag has the size of 220 amino acids (roughly 26 kDa), which, compared to other tags like the myc- or the FLAG-tag, is quite big. It is fused to the N-terminus of a protein. However, many commercially-available sources of GST-tagged plasmids include a thrombin domain for cleavage of the GST tag during protein purification.

A GST-tag is often used to separate and purify as well as confirm expression of proteins that contain the GST-fusion. GST-fusion proteins can be produced in *Escherichia coli*, as recombinant proteins. The GST part binds its substrate, glutathione. Agarose beads can be coated with glutathione, and such glutathione-Agarose beads bind GST-proteins. These beads are then washed, to remove contaminating bacterial proteins. Adding free glutathione to beads that bind purified GST-proteins will release the GST-protein in solution. GST-tag antibody is a useful tool for confirming protein expression, localization of expressed proteins in cells, as well as affinity-binding of GST-tagged proteins.²

References:

1. Scheich, C. et al: BMC Biotechnol. 3:12, 2003
2. Nojima, H. et al: J. Biol. Chem. 278:15461-4, 2003

QUALITY CONTROL DATA



Western Blot detection of GST-tag in bacterial lysates containing various GST-tagged proteins (MW: 52, 41, 54, and 78 kDa respectively) using GST Antibody.

TECHNICAL INFORMATION

Source:

GST antibody is a mouse monoclonal antibody raised against purified recombinant GST-tag expressed in *E. coli*.

Specificity and Sensitivity:

This antibody detects GST-tag proteins without cross-reactivity with other related proteins.

Storage Buffer: PBS and 30% glycerol

Storage:

Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	1:50
IHC	n/d
ICC	1:200
FACS	1:200

**Optimal dilutions must be determined by end user.*

