

# GST (56C1): sc-80998

## BACKGROUND

Plasmid vectors for the expression of coding regions of eukaryotic genes in *E. coli* are in common usage; such expression vectors often encode hybrid fusion proteins containing part prokaryotic and part eukaryotic specified proteins. For instance, the pGEX.3X expression vector developed by Smith and Johnson allows for synthesis of fusion proteins between glutathione-S-transferase (GST) and proteins encoded by inserted cDNA sequences. Antibodies derived from these GST fusion proteins are useful for checking protein expression both in plaques and on Western blots as well as for immunoaffinity purification of proteins expressed in *E. coli*.

## REFERENCES

1. Maniatis, T., et al. 1982. Molecular Cloning. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory.
2. Smith, D.B. and Johnson, K.S. 1988. Single-step purification of polypeptides expressed in *Escherichia coli* as fusions with glutathione S-transferase. *Gene* 67: 31-40.
3. Crabb, B.S. and Studdert, M.J. 1995. Expression of small regions of equine herpesvirus 1 glycoprotein C in *Escherichia coli*. *Vet. Microbiol.* 46: 181-191.
4. Soler, D., et al. 1995. Matrilysin: expression, purification, and characterization. *J. Protein Chem.* 14: 511-520.
5. Yu, L., et al. 1995. Cloning, gene sequencing, and expression of the small molecular mass ubiquinone-binding protein of mitochondrial biquinol-cytochrome c reductase. *J. Biol. Chem.* 270: 25634-25638.

## SOURCE

GST (56C1) is a mouse monoclonal antibody raised against GST protein.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GST (56C1) is available conjugated to agarose (sc-80998 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-80998 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-80998 PE), fluorescein (sc-80998 FITC), Alexa Fluor<sup>®</sup> 488 (sc-80998 AF488), Alexa Fluor<sup>®</sup> 546 (sc-80998 AF546), Alexa Fluor<sup>®</sup> 594 (sc-80998 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-80998 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-80998 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-80998 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

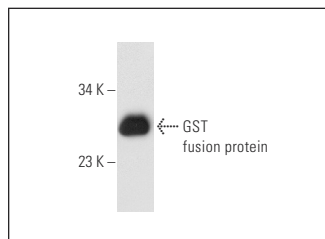
GST (56C1) is recommended for detection of GST fusion proteins by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of GST: 26 kDa.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



GST (56C1): sc-80998. Western blot analysis of recombinant GST fusion protein immunoprecipitated with GST (56C1): sc-80998 and detected with GST (Z-5): sc-459.

## SELECT PRODUCT CITATIONS

1. Moreno-Mateos, M.A., et al. 2011. PTTG1/securin modulates microtubule nucleation and cell migration. *Mol. Biol. Cell* 22: 4302-4311.
2. Yang, W., et al. 2012. ERK1/2-dependent phosphorylation and nuclear translocation of PKM2 promotes the Warburg effect. *Nat. Cell Biol.* 14: 1295-1304.
3. Wu, M., et al. 2013. The ciliary protein cystin forms a regulatory complex with neccin to modulate Myc expression. *PLoS ONE* 8: e83062.
4. Wang, H., et al. 2014. Preparation of polyclonal antibody highly specific for mouse BRD7 protein and its application. *Acta Biochim. Biophys. Sin.* 46: 163-166.
5. Li, X., et al. 2017. Blockade of the LRP16-PKR-NFκB signaling axis sensitizes colorectal carcinoma cells to DNA-damaging cytotoxic therapy. *Elife* 6: e27301.
6. Li, C., et al. 2018. EBP1 nuclear accumulation negatively feeds back on FERONIA-mediated RALF1 signaling. *PLoS Biol.* 16: e2006340.
7. Jiang, W., et al. 2018. Prolyl 4-hydroxylase 2 promotes B-cell lymphoma progression via hydroxylation of Carabin. *Blood* 131: 1325-1336.
8. Khanam, T., et al. 2020. *M. tuberculosis* class II apurinic/apyrimidinic-endonuclease/3'-5' exonuclease (XthA) engages with NAD<sup>+</sup>-dependent DNA ligase A (LigA) to counter futile cleavage and ligation cycles in base excision repair. *Nucleic Acids Res.* 48: 4325-4343.
9. Zhu, S., et al. 2020. The RALF1-FERONIA complex phosphorylates eIF4E1 to promote protein synthesis and polar root hair growth. *Mol. Plant* 13: 698-716.
10. Wang, L., et al. 2020. RALF1-FERONIA complex affects splicing dynamics to modulate stress responses and growth in plants. *Sci. Adv.* 6: eaaz1622.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.