

GST (Z-5): sc-459



The Power to Question

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 Laboratory, Cold Spring Harbor, NY.
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.

SOURCE

GST (Z-5) is a rabbit polyclonal antibody raised against a sequence of GST.

PRODUCT

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

Available as Alexa Fluor® 405 (sc-459 AF405), Alexa Fluor® 488 (sc-459 AF488) or Alexa Fluor® 647 (sc-459 AF647) conjugates for immunofluorescence; 100 µg/2 ml.

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APPLICATIONS

GST (Z-5) is recommended for detection of GST fusion proteins and glutathione-S-transferase (GST) of *Schistosoma japonicum* origin 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)]; of recombinant GST fusion proteins expressed in *E. coli*; designed to be used with GST expression vectors such as pGEX.3X and pGEX.2T.

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.

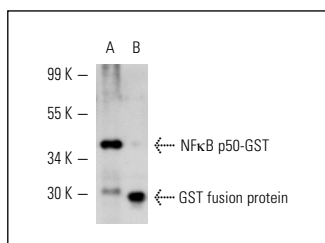
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

RESEARCH USE

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

DATA



GST (Z-5): sc-459. Western blot analysis of human recombinant NFκB p50 (A) and GST (B) fusion proteins.

SELECT PRODUCT CITATIONS

1. Gebauer, M., et al. 1997. Proteins interacting with the molecular chaperone hsp70/hsc70: physical associations and effects on refolding activity. *FEBS Lett.* 417: 109-113.
2. Hsu, R.M., et al. 2010. Identification of MYO18A as a novel interacting partner of the PAK2/βPIX/GIT1 complex and its potential function in modulating epithelial cell migration. *Mol. Biol. Cell* 21: 287-301.
3. Pitarch, A., et al. 2011. Prediction of the clinical outcome in invasive candidiasis patients based on molecular fingerprints of five anti-Candida antibodies in serum. *Mol. Cell. Proteomics* 10: M110.
4. Rodríguez-Escudero, I., et al. 2011. Interaction of the *Salmonella typhimurium* effector protein SopB with host cell Cdc42 is involved in intracellular replication. *Mol. Microbiol.* 80: 1220-1240.
5. Wu, Y.L., et al. 2011. Sulfated polymannuroguronate inhibits Tat-induced SLK cell adhesion via a novel binding site, a KKR spatial triad. *Acta Pharmacol. Sin.* 32: 647-654.
6. Gokhin, D.S. and Fowler, V.M. 2011. Cytoplasmic γ-actin and tropomodulin isoforms link to the sarcoplasmic reticulum in skeletal muscle fibers. *J. Cell Biol.* 194: 105-120.
7. Ugarte-Berzal, E., et al. 2012. A 17-residue sequence from the matrix metalloproteinase-9 (MMP-9) hemopexin domain binds α4β1 integrin and inhibits MMP-9-induced functions in chronic lymphocytic leukemia B cells. *J. Biol. Chem.* 287: 27601-27613.
8. Markkanen, E., et al. 2012. Regulation of oxidative DNA damage repair by DNA polymerase γ and MutYH by cross-talk of phosphorylation and ubiquitination. *Proc. Natl. Acad. Sci. USA* 109: 437-442.

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Try **GST (B-14): sc-138** or **GST (A-6): sc-374171**, our highly recommended monoclonal alternatives to GST (Z-5). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GST (B-14): sc-138**.