SANTA CRUZ BIOTECHNOLOGY, INC.

GST (E-14): sc-34072

SANTA CRUZ BIOTECHNOLOGY

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, 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. Xin, J., et al. 1992. Molecular cloning and characterization of PEA3, a new member of the Ets oncogene family that is differentially expressed in mouse embryonic cells. Genes Dev. 6: 481-496.
4. 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.
5. Chen, Y.R., et al. 1996. Functional expression of subunit IV of *Rhodobacter sphaeroides* cytochrome b-c_1 complex and reconstitution of recombinant protein with three-subunit core complex. J. Biol. Chem. 271: 2057-2062.
6. Murthy, T.V. 2004. Expression of GST-fused kinase domain of human Csk homologous kinase from *Pichia pastoris* facilitates easy purification. Biotechnol. Lett. 26: 443-449.

SOURCE

GST (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GST of *Schistosoma japonicum* origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-34072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

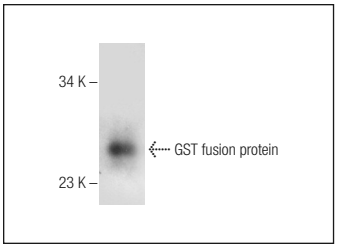
GST (E-14) is recommended for detection of GST fusion proteins and glutathione-S-transferase (GST) of *Schistosoma japonicum* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of GST: 26 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GST (E-14): sc-34072. Western blot analysis of recombinant GST fusion protein.

SELECT PRODUCT CITATIONS

1. Lissitzky, J.C., et al. 2009. Cyclic AMP signaling as a mediator of vasculogenic mimicry in aggressive human melanoma cells *in vitro*. Cancer Res. 69: 802-809.
2. Kim, D.H., et al. 2012. The Hect domain E3 ligase Tom1 and the F-box protein Dia2 control Cdc6 degradation in G_1 phase. J. Biol. Chem. 287: 44212-44220.

RESEARCH USE

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