

GST (B-14): sc-138



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*.

SOURCE

GST (B-14) is a mouse monoclonal antibody raised against the 26 kDa GST specific domain of a fusion protein encoded by a pGEX.3X recombinant vector.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GST (B-14) is available conjugated to agarose (sc-138 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-138 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-138 PE), fluorescein (sc-138 FITC), Alexa Fluor® 488 (sc-138 AF488), Alexa Fluor® 546 (sc-138 AF546), Alexa Fluor® 594 (sc-138 AF594) or Alexa Fluor® 647 (sc-138 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-138 AF680) or Alexa Fluor® 790 (sc-138 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, GST (B-14) is available conjugated to biotin (sc-138 B), 200 µg/ml, for WB, IHC(P) and ELISA; and to TRITC (sc-138 TRITC), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

GST (B-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) 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*; specifically designed to be used in combination with GST expression vectors such as pGEX.3X and pGEX.2T (Smith and Johnson, Gene 67: 31, 1998).

Molecular Weight of GST: 26 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

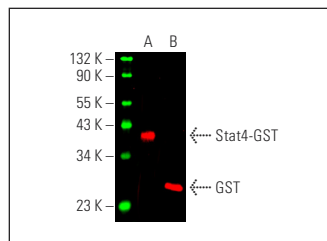
RESEARCH USE

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

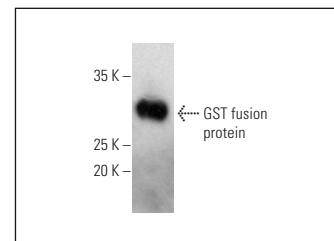
STORAGE

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

DATA



GST (B-14) Alexa Fluor® 790: sc-138 AF790. Direct near-infrared western blot analysis of GST expression in Stat4 human recombinant (A) and *Schistosoma japonicum* recombinant (B) GST fusion proteins. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 680: sc-516730.



GST (B-14) HRP: sc-138 HRP. Direct western blot analysis of *Schistosoma japonicum* recombinant GST fusion protein.

SELECT PRODUCT CITATIONS

- Weng, Z., et al. 1994. Identification of Src, Fyn, and Lyn SH3-binding proteins: implications for a function of SH3 domains. *Mol. Cell. Biol.* 14: 4509-4521.
- Lam, M.H. and Emili, A. 2013. Ubp2 regulates Rsp5 ubiquitination activity *in vivo* and *in vitro*. *PLoS ONE* 8: e75372.
- Sau, S., et al. 2014. Budding yeast kinetochore proteins, Chl4 and Ctf19, are required to maintain SPB-centromere proximity during G1 and late anaphase. *PLoS ONE* 9: e101294.
- Yoon, K.W., et al. 2015. Control of signaling-mediated clearance of apoptotic cells by the tumor suppressor p53. *Science* 349: 1261669.
- Rodrik-Outmezguine, V.S., et al. 2016. Overcoming mTOR resistance mutations with a new-generation mTOR inhibitor. *Nature* 534: 272-276.
- Fong, K.W., et al. 2017. Microtubule plus-end tracking of end-binding protein 1 (EB1) is regulated by CDK5 regulatory subunit-associated protein 2. *J. Biol. Chem.* 292: 7675-7687.
- Ye, B., et al. 2018. Klf4 glutamylation is required for cell reprogramming and early embryonic development in mice. *Nat. Commun.* 9: 1261.
- Osório, L., et al. 2019. ISM1 regulates NODAL signaling and asymmetric organ morphogenesis during development. *J. Cell Biol.* 218: 2388-2402.
- Promchan, K. and Natarajan, V. 2020. Leucine zipper transcription factor-like 1 binds adaptor protein complex-1 and 2 and participates in trafficking of transferrin receptor 1. *PLoS ONE* 15: e0226298.

PROTOCOLS

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

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