SANTA CRUZ BIOTECHNOLOGY, INC.

GST (B-14): sc-138

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 IgG_1 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 either TRITC (sc-138 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-138 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

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.

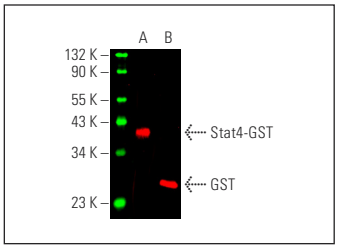
RECOMMENDED SUPPORT REAGENTS

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).

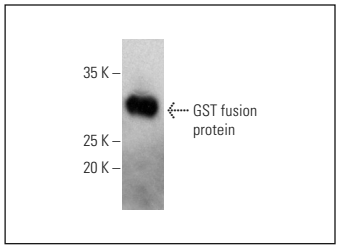
STORAGE

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

1. 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.
2. Kihara, H. and Siraganian, R.P. 1994. Src homology 2 domains of Syk and Lyn bind to tyrosine-phosphorylated subunits of the high affinity IgE receptor. J. Biol. Chem. 269: 22427-22432.
3. Woods, K.M. and Verderame, M.F. 1994. Autophosphorylation is required for high kinase activity and efficient transformation ability of proteins encoded by host range alleles of v-Src. J. Virol. 68: 7267-7274.
4. Bai, Z., et al. 2018. *Drosophila* bendless catalyzes K63-linked polyubiquitination and is involved in the response to DNA damage. Mutat. Res. 808: 39-47.
5. Ulu, A., et al. 2018. Stress-activated MAPKs and CRM1 regulate the subcellular localization of Net1A to control cell motility and invasion. J. Cell Sci. 131 pii: jcs204644.
6. Zhang, T., et al. 2018. FUS regulates activity of microRNA-mediated gene silencing. Mol. Cell 69: 787-801.
7. Jonker, C.T.H., et al. 2018. Vps3 and Vps8 control integrin trafficking from early to recycling endosomes and regulate integrin-dependent functions. Nat. Commun. 9: 792.
8. Infante, P., et al. 2018. Itch/β-arrestin2-dependent non-proteolytic ubiquitylation of SuFu controls hedgehog signalling and medulloblastoma tumorigenesis. Nat. Commun. 9: 976.
9. Ye, B., et al. 2018. Klf4 glutamylation is required for cell reprogramming and early embryonic development in mice. Nat. Commun. 9: 1261.

RESEARCH USE

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