Datasheet for ABIN5311506

GST-Catcher

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Overview

Quantity:	2000 µL
Target:	GST
Reactivity:	Schistosoma japonicum
Application:	Protein Complex Immunoprecipitation (Co-IP), Immunoprecipitation (IP), Purification (Purif), Chromatin Immunoprecipitation (ChIP), RNA-Binding Protein Immunoprecipitation (RIP)

Product Details

Sample Type:	Cell Extracts
Specificity:	The Antibody with Clone G19 recognizes Schistosoma japonicum Glutathione S-transferase (GST)
Characteristics:	GST-Catcher is based on a high-affinity single-domain antibody (sdAb) that is covalently immobilized on 4 % cross-linked agarose beads. The innovative, oriented and selective attachment via a flexible linker guarantees a high accessibility of the sdAbs and largely eliminates batch-to-batch variations. Due to the single-chain nature of sdAbs and their covalent attachment, no "leakage" of light and heavy chains from IgGs is observed during elution with SDS sample buffer. GST-Catcher thus features high affinity and superior capacity for GST fusion proteins while showing negligible non-specific background. GST-Catcher is compatible not only with physiological buffers but also with high stringency buffers. GST-Catcher thus provides great freedom to adjust the binding and washing conditions to the experimental needs.
Components:	4 % cross-linked agarose (bead size 50-150 µm) with covalently immobilized single-domain antibody

Product Details

Material not included:	wash buffers, columns, tubes
Bead Ligand:	Antibody
Bead Matrix:	Agarose beads
Bead Size:	90 µm

Target Details

Target:	GST
Alternative Name:	Glutathione S-transferase (GST) (GST Products)
Background:	Glutathione S-transferase (GST) from Schistosoma japonicum is a 26 kDa enzyme, often found as a fusion partner in expression systems. GST folds rapidly and boosts the expression and the folding of the fusion partner. It is also used as purification tag wi

Application Details

Application Notes:	200 µL slurry for up to 10 reactions
Comment:	Capacity: > 2.5 µg GST per µl of packed beads
Protocol:	This protocol provides a general outline of how to use GST-Catcher (agarose beads) for immunoprecipitation using a microcentrifuge for sedimentation. Alternatively, it is possible to use GST-Catcher agarose beads in spin columns. All protocol steps should be carried out at 4 °C. Protocol as PDF 1. For mammalian cells, harvest 10^6-10^8 cells per sample. 2. Lyse cells according to established protocols in 0.2 to 1.5 mL volume. Recommended Buffer Conditions: GST-Catcher resins are compatible with commonly used Lysis and Washing buffers, e.g. RIPA buffer. The following buffer conditions have been tested: • pH ranging from pH 5 to pH 9 • 2 % Triton X-100, 1 % Tween-20, 1 % NP-40, 1 % CHAPS, 1 % Deoxycholate, 0.1 % SDS • 4 M NaCl, 2 M KCl, 1 M $MgCl_2$ • 100 mM EDTA • 4 M urea • 10 mM DTT, 10 mM 2-Mercaptoethanol • Protease Inhibitors • RNAse A, DNAse I, Benzonase 3. Centrifuge cell lysates in microcentrifuge tubes for 10 min at 14.000 x g at 4 °C. Keep a small samples as “input” fraction. 4. Transfer the supernatant to a fresh microcentrifuge tube for each sample and keep at 4 °C.

Application Details

5. Homogenize the GST-Catcher (agarose beads) slurry gently by shaking.
6. Transfer 20 µL bead slurry to a 1.5 mL microcentrifuge tube for each sample.
7. Add 1 mL Lysis Buffer to equilibrate GST-Catcher (agarose beads).
8. Centrifuge GST-Catcher (agarose beads) for 1 min at 1000 x g and carefully remove the supernatant.
9. Repeat wash steps once for a total of two washes.
10. Resuspend equilibrated GST-Catcher (agarose beads) gently with the cell lysate supernatant.
11. Rotate the microcentrifuge tubes for 1 h at 4 °C.
12. Centrifuge microcentrifuge tubes for 1 min at 1000 x g at 4 °C. Keep a small sample as “unbound” fraction. Carefully remove the supernatant.
13. Resuspend GST-Catcher (agarose beads) in 1 mL Lysis Buffer.
14. Centrifuge GST-Catcher (agarose beads) for 1 min at 1000 x g and carefully remove the supernatant.
15. Repeat wash steps twice for a total of three washes.
16. Resuspend GST-Catcher (agarose beads) gently in 1 mL TBS.
17. Centrifuge GST-Catcher (agarose beads) for 1 min at 1000 x g and carefully remove the supernatant.
18. Resuspend GST-Catcher (agarose beads) gently in 1 mL TBS.
19. Centrifuge GST-Catcher (agarose beads) for 1 min at 3000 x g and carefully remove the supernatant.
20. Resuspend GST-Catcher (agarose beads) resin in 50 µL 2X SDS samples buffer.
21. Heat GST-Catcher (agarose beads) resin for 5 min to 95 °C.
22. Centrifuge microcentrifuge tubes for 1 min at 3000 x g and transfer the supernatant to fresh microcentrifuge tubes. Keep the GST-Catcher (agarose beads) as backup.

Restrictions:	For Research Use only

Handling

Buffer:	50 % slurry in 20 % ethanol / PBS 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C