For Research Use Only

SUMO-Tag-Trap Agarose

www.ptgcn.com

Catalog Number: suta

Basic Information

Catalog Number:
suta

Applications:
IP, Co-IP

Conjugate:
Agarose beads; ~90 um (cross-linked 4% agarose beads)

Host:
Alpaca

Type:
Nanobody

Class:
Recombinant

Description

The ChromoTek SUMO-Tag-Trap Agarose consists of an anti-SUMO-Tag Nanobody/VHH, which is coupled to agarose beads. It can be used for the immunoprecipitation of SUMO-tagged proteins from the cell extracts of various organisms. It can also be used in conjunction with SUMO proteases such as SenP2 for on-bead digestion of SUMO-Tag fusion proteins to release the protein of interest.

Specificity/Target

Binds specifically to all common variants of the SUMO-Tag. The SUMO-Tag is based on Small Ubiquitin-like Modifier (SUMO) proteins of a size of ca. 11 kDa, which are covalently attached to target proteins as a post-translational modification. Fusion of the SUMO-Tag to a protein of interest (POI) may increase expression and solubility of the POI. Also, the SUMO-Tag can be specifically removed by SUMO proteases such as SenP2 without leaving non-native residues behind. At least three SUMO variants are commonly used as SUMO-Tag and are all recognized by the ChromoTek SUMO-Tag-Trap: the yeast SUMO homolog SMT3, the human SUMO3 and SUMOStar, a version of SMT3 resistant to SUMO proteases. Please note that the ChromoTek SUMO-Tag-Trap will also bind non-discriminatorily to endogenous SUMO homologs such as SUMO1, SUMO2 and SUMO3 present in human cells.

Elution buffer

2x SDS-sample buffer (Lämmli), 200 mM glycine pH 2.5

Affinity (K_D)

50 nM

Storage

Storage:
Shipped at ambient temperature. Upon receipt store at +4°C. Stable for one year. Do not freeze!

Storage Buffer:
20% ethanol

For technical support and original validation data for this product please contact:

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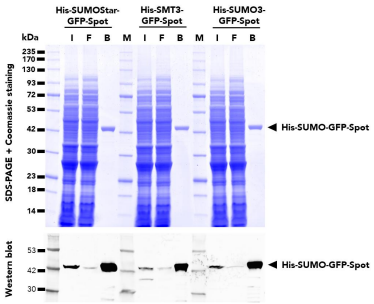
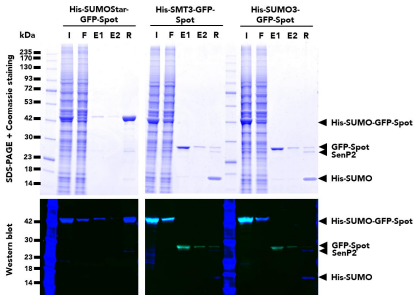
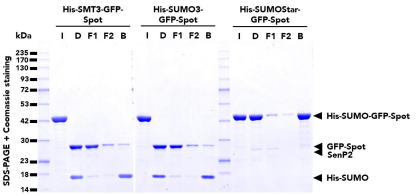
Selected Validation Data



Immunoprecipitation of three different variants of SUMO-tagged, GFP fusion proteins from E. coli cell lysates using SUMO-Tag-Trap Agarose. WB analysis was also done on samples from the Input (I), Flow-Through (F), and Bound (B) fractions using ChromoTek Mouse anti-Spot-tag Antibody (28a5) and Multi-rAb CoraLite Plus 647-Goat Anti-Mouse Recombinant Secondary Antibody (RGAM005).



Immunoprecipitation of three different variants of SUMO-tagged, GFP fusion proteins from HEK293T cell lysates using SUMO-Tag-Trap Agarose (suta) followed by on-bead digest and elution with SenP2 protease. The majority of the cleaved protein is released after the 1st elution (E1), with the SenP2 and SUMO-tag remaining with beads in the residual (R) fraction. SUMOStar is resistant to SenP2 and was used as a control. For all three variants, Fluorescent WB analysis was also done on the Input (I), Flow-Through (FT), Bound (B), Elution 1 and 2 (E1 and E2) and Residual (R) fractions of the IP and digest using Coralite Plus 647-conjugated His-Tag Monoclonal Antibody (CL647-66005), and GFP Polyclonal Antibody (PABG1) labeled with FlexAble 2.0 CoraLite Plus 488 Antibody Labeling Kit for Rabbit IgG (KFA501).



Purified SUMO-GFP fusion proteins were digested using SenP2 protease. The Digest (D) material was then incubated with SUMO-Tag-Trap Agarose (suta). Digested protein shows up in the Flow-Through (F1 and F2) fractions, while His-SUMO tags remain bound to the Trap (B). As SUMOStar is a resistant to the SenP2 protease, it was used as a control.