

Datasheet for 009-001-T53S

STAT3 protein-GST fusion**Overview**

Description:	STAT3 recombinant protein-GST fusion protein - 009-001-T53S
Item No.:	009-001-T53S
Size:	20 µg
Applications:	WB
Origin:	Human
Expressed in:	Sf9 cells

Product Details

Background:	STAT3 is a member of the signal transducers and activators of transcription (STAT) family of proteins that carry out a dual function: signal transduction and activation of transcription. STAT3 is widely expressed and becomes activated through phosphorylation on tyrosine as a DNA binding protein in response to a variety of stimuli such as EGF, IL-6, PDGF, IL-2 and G-CSF (1). This phosphoprotein forms homodimers as well as heterodimers with other members of the STAT family and translocate to the nucleus in order to modulate the transcription of various genes (2). STAT3 Protein is ideal for investigators involved in Signaling Proteins, Transcription Proteins, Apoptosis/Autophagy, Cancer, ERK/MAPK Pathway, Inflammation, and JAK/STAT Pathway research.
Synonyms:	APRF, FLJ20882, MGC16063, Signal transducer and activator of transcription 3, Acute-phase response factor
Species of Origin:	Human
Expressed in:	Sf9 cells
Type:	Recombinant Protein

Target Details

Gene Name:	STAT3
Purity/Specificity:	Recombinant full-length human STAT3 was expressed by baculovirus in Sf9 insect cells using an N-Terminal Glutathione-S-Transferase fusion protein. The purity was determined to be >90% by densitometry.

Relevant Links: • [NCBI - NM_139276](#)

Application Details

Suggested Applications:	WB (Based on references)
Application Note:	STAT3 Protein is stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol. STAT3 Protein is suitable for use in Western Blot and Kinase Assay. Expect a band approximately ~120kDa on specific lysates or tissues. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	User Optimized

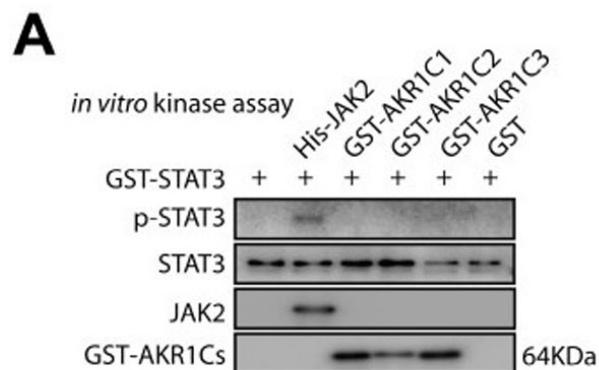
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.2 µg/µL
Buffer:	See application note.

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

AKR1C1 facilitates the interaction of STAT3 and JAK2 in NSCLC. (A) AKR1C1/2/3 possessed no kinase activity. Purified proteins including His-JAK2, GST-AKR1C1, GST-AKR1C2, GST-AKR1C3 with GST-STAT3 were subjected to *in vitro* kinase assay, and the phosphorylation level of STAT3 was examined. Figure 6. PMID: 29344298.

References

- Li YL et al. ApoC1 promotes the metastasis of clear cell renal cell carcinoma via activation of STAT3. *Oncogene*. (2020)
- Zhu H et al. AKR1C1 activates STAT3 to promote the metastasis of non-small cell lung cancer. *Theranostics*. (2018)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.