Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-261

Phosphoserine Antibody

Overview

Description:	Anti-PhosphoSerine (pS) (RABBIT) Antibody - 600-401-261
Item No.:	600-401-261
Size:	100 µg
Applications:	ELISA, IHC, IP, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-Phosphoserine Antibody detects phosphorylated Serines. Serine is one of the proteinogenic amino acids. By virtue of the hydroxyl group, serine is classified as a polar amino acid. It is not essential to the human diet, since it is synthesized in the body from other metabolites, including glycine. Serine is important in metabolism in that it participates in the biosynthesis of purines and pyrimidines. It is the precursor to several amino acids including glycine and cysteine, and tryptophan in bacteria. It is also the precursor to numerous other metabolites, including sphingolipids and folate, which is the principal donor of one-carbon fragments in biosynthesis. Anti-phospho Serine Antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Immunology, Cancer research and Signal Transduction research.
Synonyms:	pS antibody, phospho serine AB, PhosphoSerine (pS) reactive antibody, proteinogenic amino acid antibodies, Phosphoserine [pS] polyclonal antibody, PhosphoSerine antibody produced in rabbit
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Mouse
Immunogen Type:	Other

Immunogen:	Phosphoserine Antibody was prepared from whole rabbit serum produced by repeated immunizations with phosphoserine conjugated KLH.
Purity/Specificity:	Anti-Phosphoserine Antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phosphorylated serine peptide coupled to agarose. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit IgG. Reactivity is specific for phosphoserine and minimal cross-reactivity is observed against phosphotyrosine or phosphothreonine.
Relevant Links:	• 600-401-261 SDS

Application Details

Tested Applications:	ELISA, IHC, IP, WB
Application Note:	Phosphoserine Antibody is tested for use in ELISA, western blotting, Immunohistochemistry-P, and immunoprecipitation assays. The antibody reacts specifically with phosphoserine and shows minimal reactivity by ELISA and western blotting with proteins containing phosphotyrosine or phosphothreonine residues. The antibody reacts with free phosphoserine, phosphoserine conjugated to carriers such as thyroglobulin or BSA, and detects the presence of phosphoserine in proteins of both unstimulated and stimulated cell lysates. Although not tested, this antibody is likely functional in RIA and flow cytometry.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000-1:2,500
IHC:	User Optimized
IP:	10 µg/mg protein sample
WB:	1:500-1:1,000

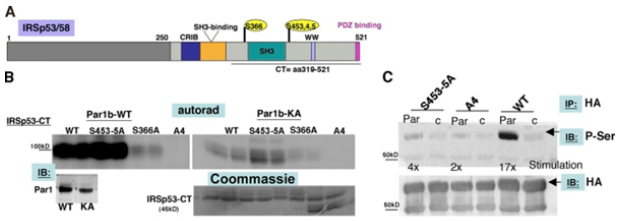
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	250 µg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	None
Stabilizer:	50% (v/v) Glycerol

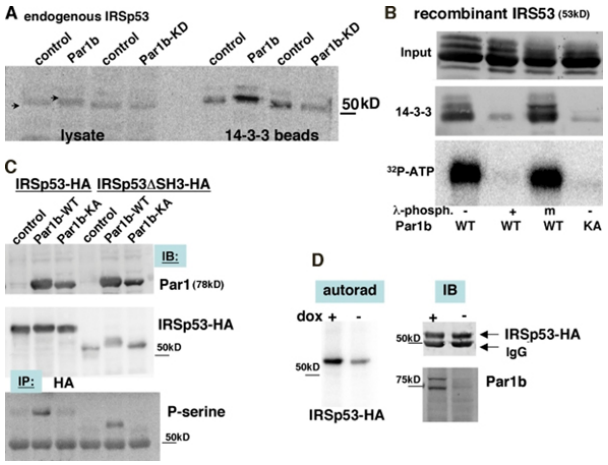
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

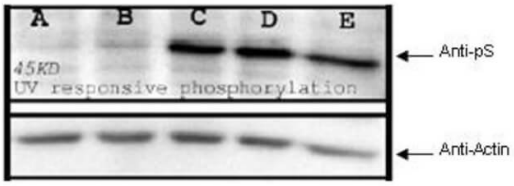
Images



Western Blot
Par1 phosphorylation on S366 and Par1b-depedendent S453/4/5 phosphorylation promote 14-3-3 binding of IRSp53. (A) Diagram of Par1b-dependent phosphorylation sites in IRSp53. (B) In vitro kinase assays with WT and Par1b-KA using [32P]γATP and IRSp53-CT (WT and point mutants) as substrates. (C) IRSp53-HA–transfected cells (WT, A4, and S453-5A) were transduced with control (c) or Par1b virus, and the HA IPs were probed for P-serine and subsequently for HA. Fig 3. PMID: 21282462



Western Blot
Par1b promotes IRSp53 phosphorylation and 14-3-3 binding. (A) IRSp53 in total lysates from Par1b and Par1b-KD cells (1/10 input) and from lysate fractions adsorbed on immobilized 14-3-3τ and competitively eluted. Arrows show a decrease in IRSp53 mobility in the Par1b lysates. (B) In vitro kinase assays of recombinant IRSp53 with Par1b-WT or Par1b-KA followed by λ-phosphatase (+) or mock (m) treatment and subsequent binding to immobilized 14-3-3τ. (top) 1/10 of IRSp53 input is shown. (middle) IB is shown, with IRSp53 competitively eluted from 14-3-3 resin. (bottom) Autorad is shown, with [32P]γATP-Par1b–phosphorylated IRSp53. (C) IRSp53-HA or IRSp53ΔSH3-HA cells transduced with control, Par1b-WT, or Par1b-KA adenovirus. IB of 1/10 Par1b, IB of HA input, and phospho-serine after HA IP are shown. (D) IRSp53-HA immunoprecipitated from [32P]orthophosphate-labeled (autorad) and unlabeled (IB, IRSp53-HA) Par1b-KD cells. Par1b IB shows dox-dependent depletion of the two Par1b splice variants. Fig 2. PMID: 21282462



Western Blot
Rockland's Affinity Purified anti-phosphoserine (pS) antibody is shown to detect phosphorylated proteins present in UV-treated mouse spleen cell lysates (top panel).

References

- Cohen D et al. The serine/threonine kinase Par1b regulates epithelial lumen polarity via IRSp53-mediated cell-ECM signaling. *J Cell Biol.* (2011)

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.