novex®
by life technologies™

ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody

Store at 2°C to 8°C (short-term), or –20°C (long-term)

Catalog Number: 710395

Pub. No. MAN0007443 **Rev.** 1.00

Clonality:	Oligoclonal	**Quantity**:	100 µg	**Volume**: 200 µL	**Concentration**: 0.5 mg/mL
Host/Class:	Rabbit IgG	**Reactivity**:	Human TSC2 [pS939]	**Predicted Reactivity**: Human	

Product Description

Tuberin (TSC2) is a tumor suppressor protein which forms a heterodimer with hamartin involved in regulation of cell growth and size. It acts to inhibit mTOR, resulting in the downstream activation of 4E-BP1, which leads to inhibition of translation. It is also involved in microtubule mediated protein transport. Tuberin expression is present in most tissues, and is co-localized with hamartin. Phosphorylation of tuberin on Ser 939 and Thr 1462 regulates its interaction with hamartin, and is stimulated by various growth factors through the phosphoinositide 3-kinase/Akt pathway.

Product Specifications

Immunogen: Phosphoeptide corresponding to amino acids 935–944 of human TSC2 [pS939]
Alternate Names: Tuberin, TSC2, TSC4
Apparent MW: ~200 kDa
Gene ID: 7249
Protein Accession No.: P49815
Sequence Identity: Human
Sequence Homology: Chimpanzee, Gorilla, Monkey, Horse
Clone/PAD: 23 HCLC
Lot: See product label

Product Applications

Application	Species	Test Material	Concentration
Western blotting	Human	NIH3T3 cells	2–3 µg/ mL
Indirect ELISA	Human	Phospho-peptide	1.5×10^{-4} to 3 µg/mL
Immunocyto chemistry	Human	U2OS cells	2 µg/mL
Flow cytometry	Human	HepG2 cells	1×10^{-6} cells to 1 µg/mL

Storage and Handling

Store the antibody at 2°C to 8°C for up to 1 month, –20°C for long storage. Avoid repeated freezing and thawing.

Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

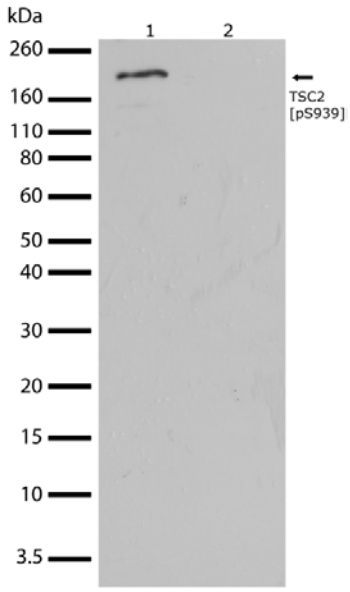

Figure 1 Western blot analysis of ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710395).

Western blot analysis was performed on whole cell extracts from NIH3T3 cellls treated with insulin. Endogenous levels of TSC2 [pS939] was detected at ~200 kDa using ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody at a concentration of 2 µg/mL (lane 1). To confirm specificity, competition was performed by preincubation with phosopeptide to inhibit antibody binding (lane 2). The blot was developed using enhanced chemiluminescence (ECL) method.

Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

CAUTION! Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. SDSs are available at www.lifetechnologies.com/support.

Manufacturing Site • 7335 Executive Way • Frederick • MD 21704 • E-mail: techsupport@lifetech.com

Product Documentation

To obtain a Certificate of Analysis or SDS, visit **www.lifetechnologies.com/support**.

Related Products

Product Name	Quantity	Catalog No.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze® Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze® Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106

Limited Product Warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at **www.lifetechnologies.com/termsandconditions**. If you have any questions, please contact Life Technologies at **www.lifetechnologies.com/support**.

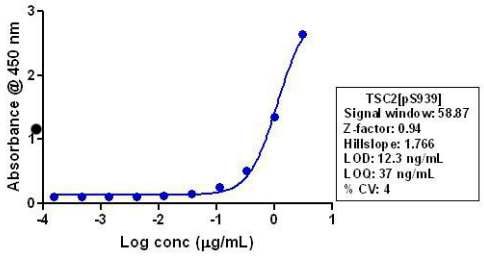

Figure 2 Indirect ELISA of ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710395).

Indirect ELISA was performed using various dilutions of ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody to detect TSC2 [pS939] peptide coated onto the plate. A non-linear regression analysis was performed (4 PL), LOD and LOQ for the antibody was determined.

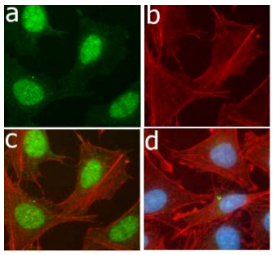

Figure 3 Immunocytochemistry analysis of ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710395).

Immunocytochemistry analysis of U2OS cells stained with ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody, using **a:** Alexa Fluor® 488 goat anti-rabbit as a secondary antibody (green).**b:**Actin stained with Alexa Fluor® 594 phalloidin (red). **c:** Composite image of cells showing nuclearlocalization of TSC2 [pS939]. **d:** DAPI stained U2OS nuclei (blue).

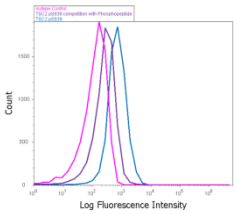

Figure 4 Flow cytometry analysis of HepG2 cells labelled with ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody (Cat. no. 710395).

Fixed and permeabilized HepG2 cells were labeled with ABfinity™ TSC2 [pS939] Recombinant Rabbit Oligoclonal Antibody, followed by Alexa Fluor 488® goat anti-rabbit staining (right peak). To confirm specificity, the cells stained with TSC [pS939] ABfinity™ Recombinant Rabbit Oligoclonal Antibody after incubation with phosphopeptide (middle peak), in addition to performing an isotype control (left peak).

Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer	REF	Catalog number	LOT	Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

Limited Use Label License No. 327: Recombinant Antibody Technology

Notice to Purchaser: The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research and manufacturing conducted by the buyer (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product, (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. The buyer may transfer information or materials made through the use of this product to a scientific collaborator, provided that such transfer is not for any Commercial Purpose, and that such collaborator agrees in writing (a) not to transfer such materials to any third party, and (b) to use such transferred materials and/or information solely for research and not for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components for contract manufacturing services; (2) use of the product or its components to provide a service, information, or data; (3) use of the product itself or its components as a therapeutic, diagnostic or prophylactic; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research or manufacturing. If the purchaser is not willing to accept the limitations of this limited use statement, Life Technologies is willing to accept return of the product for a full refund. For information on obtaining additional rights, please contact **outlicensing@lifetech.com**.