

Product datasheet

Anti-Tuberin antibody ab245280

2 Images

Overview

Product name	Anti-Tuberin antibody
Description	Rabbit polyclonal to Tuberin
Host species	Rabbit
Tested applications	Suitable for: WB, IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Tuberin aa 1750-1807. The exact sequence is proprietary. Database link: P49815
Positive control	WB: HeLa whole cell lysate. IP: HeLa whole cell lysate.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer

pH: 7
Preservative: 0.09% Sodium azide
Constituent: Tris citrate/phosphate

Purity

pH 7 to 8
Immunogen affinity purified

Purification notes

ab245280 was affinity purified using an epitope specific to Tuberin immobilized on solid support.

Clonality

Polyclonal

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab245280** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/5000 - 1/15000. Predicted molecular weight: 201 kDa.
IP		Use at 2-5 µg/mg of lysate.

Target

Function

In complex with TSC1, inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling. Acts as a GTPase-activating protein (GAP) for the small GTPase RHEB, a direct activator of the protein kinase activity of mTORC1. Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling. Stimulates weakly the intrinsic GTPase activity of the Ras-related proteins RAP1A and RAB5 in vitro. Mutations in TSC2 lead to constitutive activation of RAP1A in tumors.

Tissue specificity

Liver, brain, heart, lymphocytes, fibroblasts, biliary epithelium, pancreas, skeletal muscle, kidney, lung and placenta.

Involvement in disease

Defects in TSC2 are the cause of tuberous sclerosis type 2 (TSC2) [MIM:613254]. TSC2 is an autosomal dominant multi-system disorder that affects especially the brain, kidneys, heart, and skin. It is characterized by hamartomas (benign overgrowths predominantly of a cell or tissue type that occurs normally in the organ) and hamartias (developmental abnormalities of tissue combination). Clinical symptoms can range from benign hypopigmented macules of the skin to profound mental retardation with intractable seizures to premature death from a variety of disease-associated causes.

Defects in TSC2 are a cause of lymphangi leiomyomatosis (LAM) [MIM:606690]. LAM is a progressive and often fatal lung disease characterized by a diffuse proliferation of abnormal smooth muscle cells in the lungs. It affects almost exclusively young women and can occur as an isolated disorder or in association with tuberous sclerosis complex.

Sequence similarities

Contains 1 Rap-GAP domain.

Post-translational

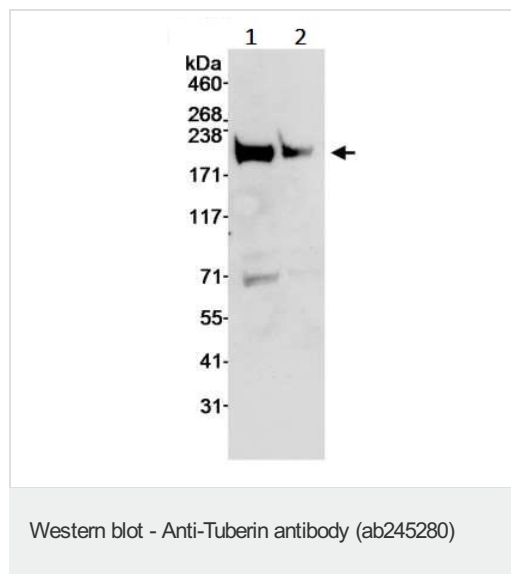
Phosphorylation at Ser-1387, Ser-1418 or Ser-1420 does not affect interaction with TSC1.

modifications

Phosphorylation at Ser-939 and Thr-1462 by PKB/AKT1 is induced by growth factor stimulation.

Cellular localization

Cytoplasm. Membrane. At steady state found in association with membranes.

Images

All lanes : Anti-Tuberin antibody (ab245280) at 0.1 µg/ml

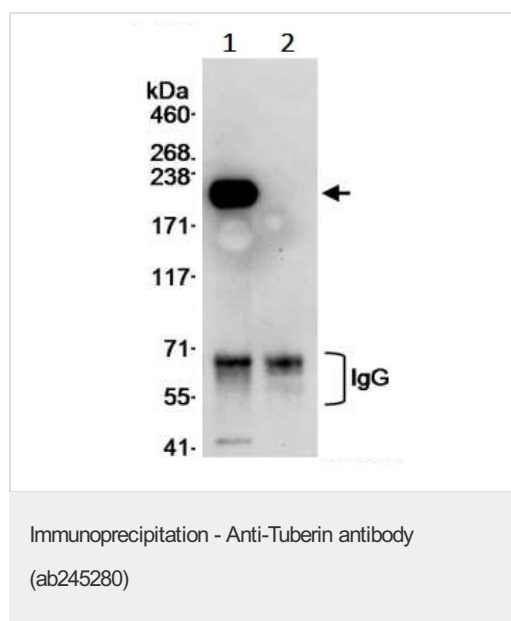
Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg

Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 15 µg

Developed using the ECL technique.

Predicted band size: 201 kDa

Exposure time: 30 seconds



Tuberin was immunoprecipitated from HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate (1 mg for IP, 25% of IP loaded) with ab245280 at 3 µg/mg lysate. Western blot was performed from the immunoprecipitate using ab245280 at 0.1 µg/ml.

Lane 1: ab245280 IP in HeLa whole cell lysate.

Lane 2: Control IgG IP in HeLa whole cell lysate.

Detection: Chemiluminescence with exposure time of 30 seconds.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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