

### Anti-Tuberin antibody [Y320] ab32554

KO 評価済 リコンビナント RabMAb

★★★★★ [1 Abreviews](#) [18 References](#) [画像数 7](#)

#### 製品の概要

製品名	Anti-Tuberin antibody [Y320]
製品の詳細	Rabbit monoclonal [Y320] to Tuberin
由来種	Rabbit
特異性	This antibody recognises Tuberous sclerosis complex-2 (TSC2 also known as Tuberin. It is predicted to detect isoform 2-4 based on sequence homology.
アプリケーション	<b>適用あり:</b> Flow Cyt (Intra), WB, IHC-P
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Synthetic peptide within Human Tuberin aa 1750-1850 (C terminal). The exact sequence is proprietary.
ポジティブ・コントロール	WB: HAP1 and HeLa whole cell lysates. Rat and mouse brain tissue lysates; Flow Cyt (intra): Jurkat cells; IHC: Rat and mouse liver tissue. Human lung carcinoma tissue.
特記事項	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
バッファー	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA</p>
精製度	Protein A purified

ポリ/モノ	モノクローナル
クローン名	Y320
アイソタイプ	IgG

## アプリケーション

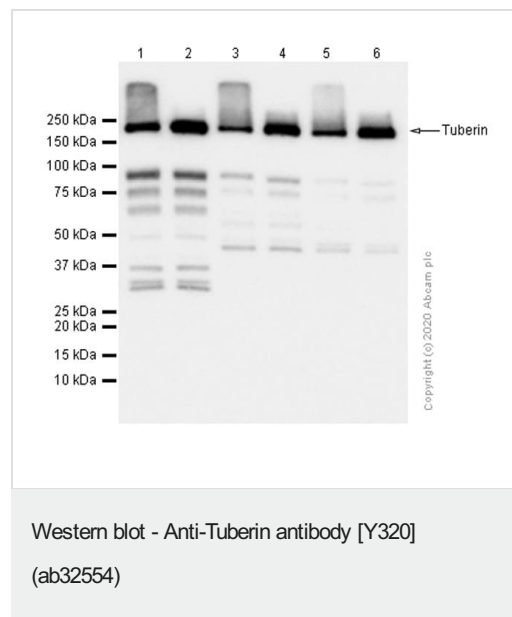
The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab32554の使用に適用されます**  
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/30. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/100 dilution
WB	★★★★★ (1)	1/1000 - 1/10000. Detects a band of approximately 220 kDa (predicted molecular weight: 200 kDa).
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## ターゲット情報

機能	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.
組織特異性	Liver, brain, heart, lymphocytes, fibroblasts, biliary epithelium, pancreas, skeletal muscle, kidney, lung and placenta.
関連疾患	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 lymphangioleiomyomatosis (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.
配列類似性	Contains 1 Rap-GAP domain.
翻訳後修飾	Phosphorylation at Ser-1387, Ser-1418 or Ser-1420 does not affect interaction with TSC1. Phosphorylation at Ser-939 and Thr-1462 by PKB/AKT1 is induced by growth factor stimulation.

## 画像



**All lanes :** Anti-Tuberin antibody [Y320] (ab32554) at 1/5000 dilution (purified)

**Lane 1 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate boiled

**Lane 2 :** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate unboiled

**Lane 3 :** Mouse brain lysate boiled

**Lane 4 :** Mouse brain lysate unboiled

**Lane 5 :** Rat brain lysate boiled

**Lane 6 :** Rat brain lysate unboiled

Lysates/proteins at 20 µg per lane.

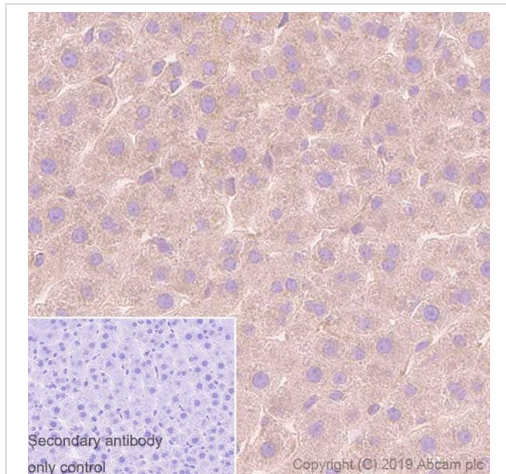
**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 200 kDa

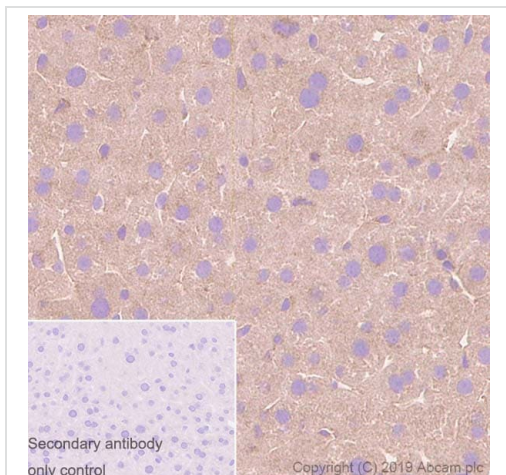
**Observed band size:** 200 kDa

The unboiled lysate are recommended to be used in SDS-PAGE, in order to prevent membrane protein aggregation.



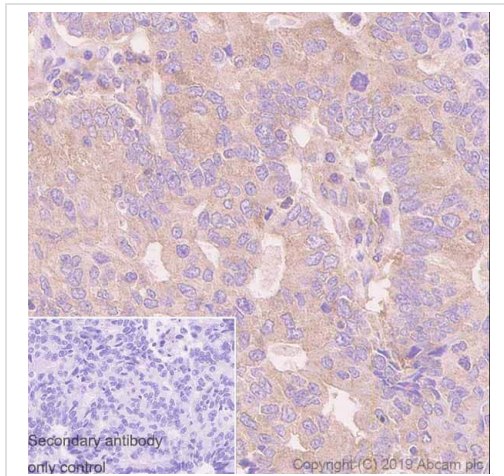
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tuberin antibody [Y320] (ab32554)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling Tuberin with purified ab32554 at 1/100 dilution (2.97 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



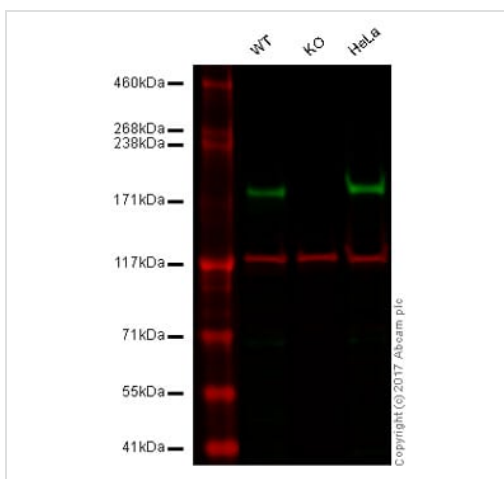
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tuberin antibody [Y320] (ab32554)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling Tuberin with purified ab32554 at 1/100 dilution (2.97 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tuberin antibody [Y320] (ab32554)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling Tuberin with purified ab32554 at 1/100 dilution (2.97 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Tuberin antibody [Y320] (ab32554)

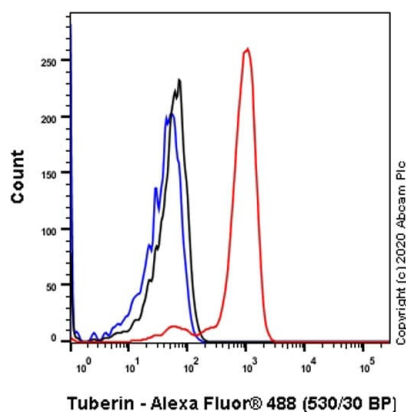
**Lane 1:** Wild-type HAP1 whole cell lysate (20 µg)

**Lane 2:** Tuberin knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** HeLa whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - unpurified ab32554 observed at 180 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab32554 was shown to specifically react with tuberin in wild-type HAP1 cells. No band was observed when tuberin knockout samples were used. Wild-type and tuberin knockout samples were subjected to SDS-PAGE. Ab32554 and **ab18058** (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Intracellular Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling Tuberin with purified ab32554 at 1/30 dilution (10µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

Flow Cytometry (Intracellular) - Anti-Tuberin antibody [Y320] (ab32554)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Tuberin antibody [Y320] (ab32554)

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