

**Rabbit Anti-Tuberin/TSC2 Polyclonal: RC0317**

**Intended Use:** For Research Use Only

**Description:** Tuberous sclerosis (TSC) is a human genetic disorder characterized by mental retardation and the widespread development of benign and infrequently malignant tumors in a variety of tissues. Two different genetic loci have been linked to TSC; one of these loci, the tuberous sclerosis-2 gene (TSC2), encodes a protein 1784 amino acids in length, called tuberin. Tuberin exhibits a region of limited homology to the catalytic domain of Rap1 GAP. Subcellular fractionation studies have shown tuberin to be predominantly localized in membrane fractions. Tuberin is capable of stimulating the intrinsic GTPase activity of Rap 1A, but not Rap 2, H-Ras, Rac or Rho. TSC2 maps to human chromosome 16 and is associated with several intragenic mutations in affected patients. The mouse homolog of the tuberin gene maps to chromosome 17.

**Specifications:**

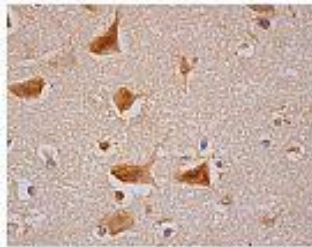
Clone: Polyclonal  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human, mouse, rat, equine, canine, porcine and avian  
 Localization: Cytoplasm, membrane  
 Formulation: In 1.0 ml of PBS with < 0.1% sodium azide (NaN<sub>3</sub>) and 0.1% gelatin  
 Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles  
 Applications: IHC, ELISA, IF, IP, WB  
 Package:

Description	Catalog No.	Size
Tuberin/TSC2 Concentrated	RC0317	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Hepatocarcinoma  
 Concentrated Dilution: 50-250  
 Pretreatment: Citrate pH6.0, or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



Human cerebral cortex FFPE tissue stained with anti-Tuberin using DAB.

**References:**

1. Interaction of FoxO1 and TSC2 Induces Insulin Resistance through Activation of the Mammalian Target of Rapamycin/p70 S6K Pathway. Cao, Y. et al J. Biol. Chem. 281: 40242-40251, 2006.
2. Phosphorylation and Functional Inactivation of TSC2 by Erk: Implications for Tuberous Sclerosis and Cancer Pathogenesis. Ma L et al. Cell. 121: 179-193, 2005.
3. Feedback inhibition of Akt signaling limits the growth of tumors lacking Tsc2. Manning, BD. et al. Genes Dev. 19(15): 1773-1778, 2005.

Doc. 100-RC0317  
Rev. A