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Product Data Sheet

Purified anti-TSC2 Phospho (Ser664)

Catalog # / Size: 635901 / 25 µl
635902 / 100 µl

Clone: Poly6359

Isotype: Rabbit Polyclonal

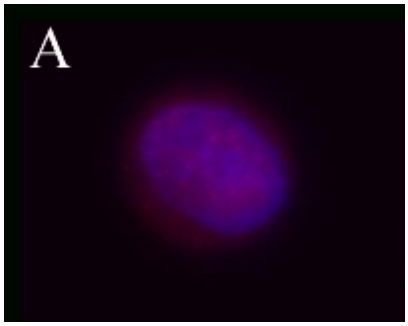
Immunogen: Modified peptide

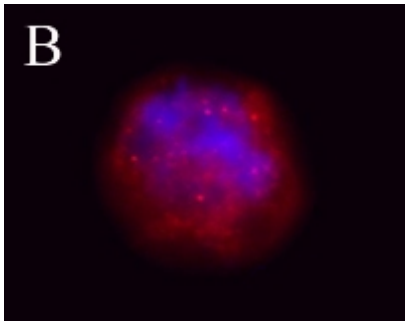
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 50% glycerol.

Storage: Upon receipt, store frozen at -20°C.





Untreated Hela cells (Panel A), or overnight nocodazole treated Hela cells (Panel B) stained with purified rabbit polyclonal antibody Poly6359 against phospho-TSC2 (Ser664), followed by Cy3-conjugated Donkey anti-rabbit IgG and DAPI.

Applications:

Applications: IF - *Quality tested*
IHC - *Validated*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescence staining. For immunofluorescence microscopy: Use a dilution range of 1:100~1:400. It is recommended that the reagent be titrated. For IHC, use a 1:50 dilution of antibody for staining. Antigen retrieval for IHC of formalin-fixed paraffin-embedded tissue using 0.01 M sodium citrate buffer is recommended.

Application Notes: The Poly6359 antibody recognizes human phospho-TSC2 (Ser664) and has been shown to be useful for immunofluorescent staining. This antibody does not detect TSC2 phosphorylated at other sites.

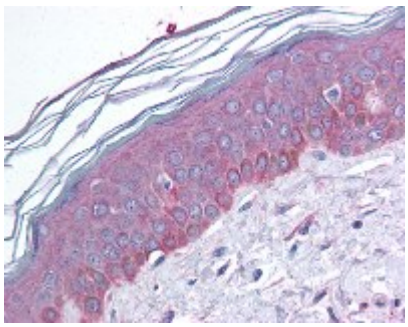
Application References:
1. Bartolome A, *et al.* 2010. *Endocrinology.* PubMed
2. Miyazaki M, *et al.* 2011. *J Physiol.* 589:1831. PubMed.

Description: Tuberous sclerosis complex (TSC) is an autosomal dominant genetic disorder that is caused by mutation in either the TSC1 (hamartin) or TSC2 (tuberin) gene. TSC1 and TSC2 proteins form a physical and functional heterodimer in vivo thatinhibits ribosomal protein S6 kinase 1 (S6K1) and activates eukaryotic initiation factor 4E-bindingprotein 1 (4E-BP1) by inhibition of the mammalian target of rapamycin (mTOR). TSC2 belongs to small GTPase protein of the Ras superfamily, contain a Rap-GAP domain. Predicted molecular weight 201 kD. Ser664 TSC2 phosphorylation leads to TSC1-TSC2 dissociation and markedly impairs TSC2 ability to inhibit mTOR signaling, cell proliferation, and oncogenic transformation. Erk (extracellular signal-regulated kinase) may contribute to tumorigenesis by phosphorylating TSC2 at specific residues, particularly S664.

Antigen References:
1. Inoki K, et al. 2002. *Nat. Cell Biol.* 4:648

Related Products:

Product	Clone	Application
Cy3 Donkey anti-rabbit IgG (minimal x-reactivity)	Poly4064	IF
FITC Donkey anti-rabbit IgG (minimal x-reactivity)	Poly4064	IF



Formalin-fixed paraffin-embedded human epidermis tissue was stained with Poly6359 and developed with an alkaline phosphatase chromogen substate (red color). Tissue was counterstained with H&E (blue/pink). Magnification, 40X.

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