

## Applications

Competition ELISA	Western Blot	SPR	Spiked IP	Immunofluorescence	IP-MS	ChIP
Pass					Pass	

\*rAb has been tested for the following applications. See below for the experimental details.

## Antibody information

**rAb ID:** anti-TSC2-RAB-C431

**Description:** recombinant Fab fragment obtained by recombinant antibody (rAb) phage display recognizing TSC2 protein under non-denaturing conditions; specificity and affinity tested.

**Binder type:** rAb **Isotype:** IgG1 **Species:** *Homo sapiens* **Produced in:** *E. coli* **rAb tags:** Avi-tag; no tag

**Specificity:** reacts with *Homo sapiens* TSC2 **Epitope:** binds to folded domain amino acids 1525-1742

**Storage conditions:** short term – store at 4°C (over 6 months), long term - PBS -20°C or -80°C

**Link:** <http://recombinant-antibodies.org/binders/anti-TSC2-RAB-C431>

## Antigen information

**Protein Name:** Tuberin

**HGNC Symbol:** TSC2 **HGNC ID:** 12363 **Species:** *Homo sapiens*

**UniProt AC:** P49815 **UniProt KB:** TSC2\_HUMAN

**Protein Sequence:**

MSGLNDIFEAQKIEWHEGSAGGSGQSFERSVQLLDQIPSYDTHKIAVLYVGEGQSNSELAILLSNEHGSYRYTEFLTGLGRLLI  
ELKDCQPKVYVLGGLDVCGEDGQFTYCW HDDIMQAVFHIATLMPTKDVDKHKRCDKRRHLGNDFV/SIVYNDSGEDFKLGTI  
KGQFNFVHVIVTPLDYECNLVSLQCRKDMEGLVDTSVAKIVSDRNLPFVARQMALHANMASQVHHSRSNPTDIYPSKWIAG  
GSGHHHHHH

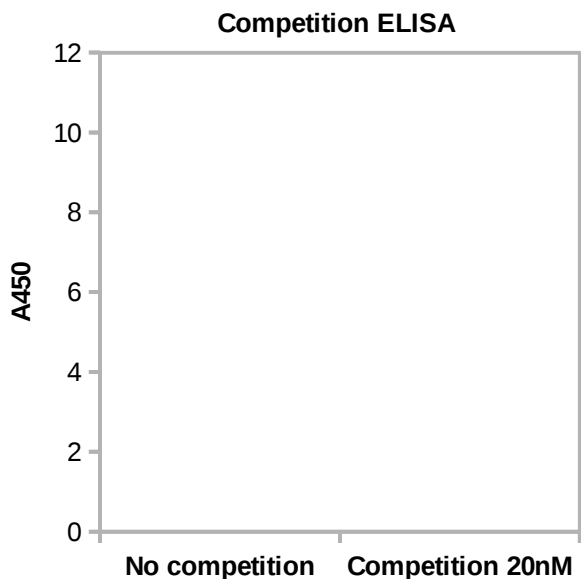
**Tag N-terminus:** MSGLNDIFEAQKIEWHEGSAGGSG **Tag C-terminus:** GSGHHHHHHH

**Vector Type:** p28BIOH-LIC **Vector Link:** [http://www.thesgc.org/sites/default/files/toronto\\_vectors/p28BIOH-LIC.pdf](http://www.thesgc.org/sites/default/files/toronto_vectors/p28BIOH-LIC.pdf)

**Protein Sequence Position:** 1525-1742 **Antigen source:** *E. coli* **Source Lab:** SGC **Source Lab ID:** TSC2-A004

**Description:** affinity purified recombinant protein

## Validation data



**Single point competition phage ELISA** Plot represents specific binding of a target to the rAb-phage in solution (right bar) in comparison to binding to the target immobilized on the plate surface (left bar). Experimental conditions were calibrated to capture binders with dissociation Constant ( $K_D$ ): 20nM or lower.

**Experimental Conditions:** Culture supernatants containing rAb-phage were diluted five-fold in phosphate-buffered saline, 0.5% (w/v) BSA, 0.1% (v/v) Tween 20 either with or without soluble antigen competitor at 20 nM. After 1 h incubation at room temperature, the mixtures were transferred to neutravidin coated plates preloaded with 50  $\mu$ L of 20 nM biotinylated antigen and incubated for 15 min. The plates were washed with phosphate-buffered saline, 0.05% (v/v) Tween 20 and incubated for 30 min with horse radish peroxidase/anti-M13 antibody conjugate (1:5000 dilution). The plates were washed, developed with 3,3',5,5'-Tetramethyl-benzidine/ $H_2O_2$  peroxidase substrate (Thermo Scientific), quenched with 1M  $H_3PO_4$ , and the absorbance at 450 nm (A450) was determined.

### Spiked IP:

#### Status:

Experimental Conditions: <http://recombinant-antibodies.org/protocols/spiked-IP>

### Immunofluorescence:

#### Status:

Experimental Conditions: <http://recombinant-antibodies.org/protocols/immunofluorescence>

### IP-MS – immunoprecipitation for mass spectrometric analysis:

#### Status: Pass

Experimental Conditions: <http://recombinant-antibodies.org/protocols/IP-MS>

### ChIP – chromatin immunoprecipitation:

#### Status:

Experimental Conditions: Pending

### IP – immunoprecipitation:

#### Status:

Experimental Conditions: Pending

### SP Elisa:

#### Status:

Experimental Conditions: <http://recombinant-antibodies.org/protocols/ELISA-IC50-EC50-direct-coating>

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