

For Research Use Only

# STK39 Recombinant antibody, PBS Only (Capture)

Catalog Number: 83081-2-PBS



## Basic Information

|                                                              |                                                                                |                                                       |
|--------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>Catalog Number:</b><br>83081-2-PBS                        | <b>GenBank Accession Number:</b><br>BC166614                                   | <b>Purification Method:</b><br>Protein A purification |
| <b>Size:</b><br>100ug, Concentration: 1mg/ml by<br>Nanodrop; | <b>GeneID (NCBI):</b><br>27347                                                 | <b>CloneNo.:</b><br>230382G9                          |
| <b>Source:</b><br>Rabbit                                     | <b>UNIPROT ID:</b><br>Q9UEW8                                                   |                                                       |
| <b>Isotype:</b><br>IgG                                       | <b>Full Name:</b><br>serine threonine kinase 39<br>(STE20/SPS1 homolog, yeast) |                                                       |
| <b>Immunogen Catalog Number:</b><br>AG34503                  | <b>Calculated MW:</b><br>59 kDa                                                |                                                       |
|                                                              | <b>Observed MW:</b><br>62 kDa                                                  |                                                       |

## Applications

**Tested Applications:**  
WB, IF/ICC, IF-P, Cytometric bead array, Sandwich  
ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human, mouse, rat

## Product Information

83081-2-PBS targets STK39 as part of a matched antibody pair:

MP00106-2: 83081-2-PBS capture and 83081-4-PBS detection (validated in Cytometric bead array)

MP00106-3: 83081-2-PBS capture and 83081-1-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

STK39 (Serine/Threonine Kinase 39) is a proline- and alanine-rich Ste20-related kinase (also named as SPAK), which is composed of a short N-terminal proline and alanine repeats (PAPA box), a kinase catalytic domain and a C-terminal regulatory domain (PMID: 16382158). In mammals, STK39 plays an important role in ion homeostasis by regulating the cation chloride cotransporters' activities, which is crucial for the modulation of renal salt transport and blood pressure (PMID: 33500714). Notably, STK39 is also implicated in the regulation of tumor cell proliferation, migration, and invasion in multiple cancers, including osteosarcoma and cervical cancer (PMID: 34335956).

## Storage

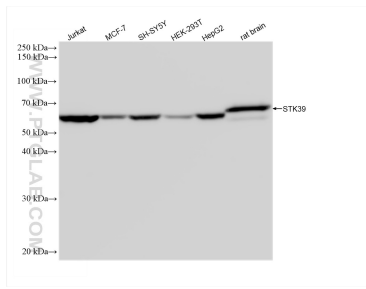
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
100% PBS pH 7.3

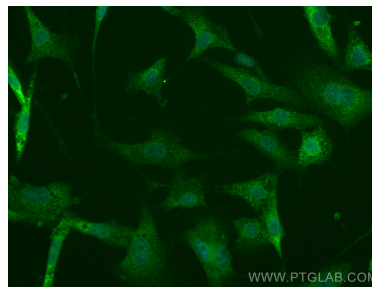
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

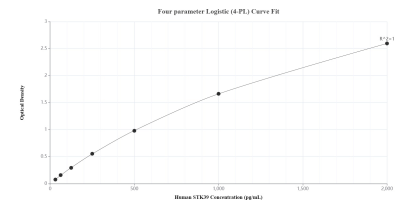
## Selected Validation Data



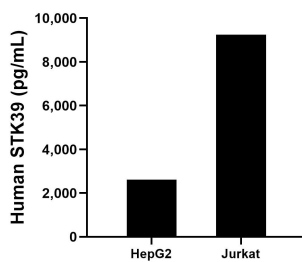
Various lysates were subjected to SDS PAGE followed by western blot with 83081-2-RR (STK39 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83081-2-PBS in a different storage buffer formulation.



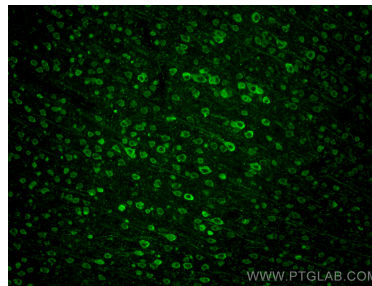
Immunofluorescent analysis of (4% PFA) fixed NIH/3T3 cells using STK39 antibody (83081-2-RR, Clone: 230382G9) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 83081-2-PBS in a different storage buffer formulation.



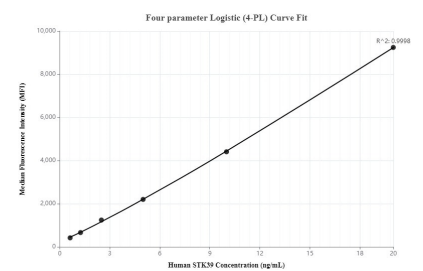
Sandwich ELISA standard curve of MP00106-3, Human STK39 Recombinant Matched Antibody Pair - PBS only. 83081-2-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag34503. 83081-1-PBS was HRP conjugated as the detection antibody. Range: 31.3-2000 pg/mL.



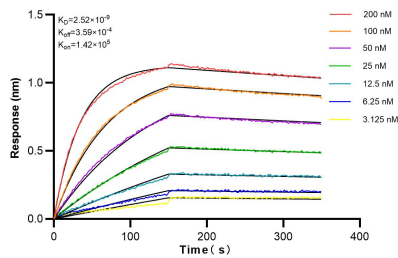
The mean STK39 concentration was determined to be 2,623.5 pg/mL in HepG2 cell extract based on a 4.2 mg/mL extract load and 9,245.2 pg/mL in Jurkat cell extract based on a 4.6 mg/mL extract load.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse brain tissue using STK39 antibody (83081-2-RR, Clone: 230382G9) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83081-2-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP00106-2, STK39 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83081-2-PBS. Detection antibody: 83081-4-PBS. Standard: Ag34503. Range: 0.625-20 ng/mL.



Biolayer interferometry (BLI) kinetic assays of 83081-2-RR against Human STK39 were performed. The affinity constant is 2.52 nM.