

## Rabbit Polyclonal LYK5 antibody

Catalog Number: STRAD-101AP

Lot Number:

### General Information

<b>Product</b>	LYK5 Antibody
<b>Description</b>	STE20-related kinase adapter protein alpha Antibody Affinity Purified N-epitope
<b>Accession #</b>	Uniprot: Q7RTN6 NCBI: NP_001003787.1
<b>Verified Applications</b>	ELISA, IHC, IP, WB
<b>Species Cross Reactivity</b>	Human, Monkey
<b>Host</b>	Rabbit
<b>Immunogen</b>	Synthetic peptide taken within amino acid region 50-100 on human STE-20 related kinase adapter protein alpha.
<b>Alternative Nomenclature</b>	Protein kinase LYK5 antibody, Serologically defined breast cancer antigen NY BR 96 antibody, STE20 related adapter protein antibody, STRAD alpha antibody, STRAD antibody

### Physical Properties

<b>Quantity</b>	100 µg
<b>Volume</b>	200 µl
<b>Form</b>	Affinity Purified Immunoglobulins
<b>Immunoglobulin &amp; Concentration</b>	0.64-0.72 mg/ml IgG in antibody stabilization buffer
<b>Storage</b>	Store at -20°C for long term storage.

### Recommended Dilutions

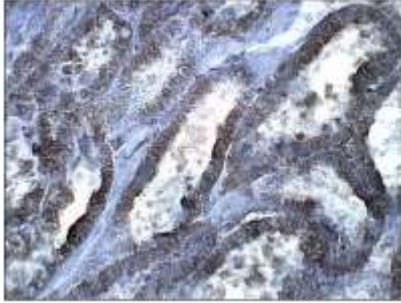
<b>DOT Blot</b>	1:10,000
<b>ELISA</b>	1:10,000
<b>Immunohistochemistry</b>	1:50-1:150
<b>Immunoprecipitation</b>	1:200
<b>Western Blot</b>	1:500

### Related Products

### Catalog #

<b>BIOTIN-Conjugated</b>	STRAD.101-BIOTIN
<b>FITC-Conjugated</b>	STRAD.101-FITC
<b>Antigenic Blocking Peptide</b>	P-STRAD.101
<b>Western Blot Positive Control</b>	PC-STRAD
<b>C-epitope LYK5 Antibody</b>	STRAD-112AP
<b>CAB39 Antibody</b>	CAB39-101AP

## Application Verification:



Baboon Kidney- LYK5/STRAD  
Primary Antibody: STRAD-101AP; 1:100 dilution in IHC Blocking Buffer. DAB (brown) staining and Hematoxylin QS (blue) counterstain. 40X magnification on FFPE section.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

## Overview:

STE20-related kinase adapter protein alpha (STRADA) is a catalytically inactive pseudokinase protein located on human chromosome 17q23.3 (1). In its association with calcium binding protein 39 (CAB39), it regulates the activity of Serine/Threonine Kinase 11 (STK11/LKB1) tumor suppressors (2). LKB1 was discovered in 1988 and ever since then extensive research has been conducted in understanding how this protein might be regulated. It was reported that LKB1 mediates its cellular functions through interactions with several proteins including CAB39 and STRADA (3). CAB39 and STRADA are identified as key proteins required for the growth suppressive function of LKB1. Studies reported that association of STRADA with ATP or CAB39 is essential for LKB1 activation and, STRADA is also required for LKB1-induced G1 cell cycle arrest (4).

It has been deduced that STRADA interacts with CAB39 via its C-terminal Trp-Glu-Phe residues (WEF motif) and any mutations in these residues abolishes this interaction. Although such STRADA mutants are unable to interact directly with CAB39, they can still form a heterotrimeric complex with LKB1 and CAB39 (5). This demonstrates that STRADA possesses multiple interaction sites for CAB39 and LKB1 that are separate from the WEF motif. Other studies have identified that deletion of 180 C-terminal residues of STRADA causes severe human developmental and epileptic syndrome termed polyhydramnios, megalencephaly, and symptomatic epilepsy (PMSE) syndrome (6). STRADA is approximately a 58kDa protein (431 amino acids).

LYK5/STRAD antibodies are affinity purified over immobilized antigen based chromatography, and the purified immunoglobulin is stabilized in antibody stabilization buffer. Western blot positive control (PC-STRAD) and antigenic blocking peptide (P-STRAD) for STRAD are available. Antibodies can be conjugated with fluorescent probes or secondary enzymes upon request at nominal cost. For a complete listing of all FabGennix products and services, please visit <http://fabgennix.com>.

## References:

1. Baas AF, et al. Activation of the tumour suppressor kinase LKB1 by the STE20-like pseudokinase. *EMBO J.* 2003; 22:3062-3072.
2. Zeqiraj E, et al. ATP and MO25alpha regulate the conformational state of the STRADalpha pseudokinase and activation of the LKB1 tumor suppressor. *PLoS Biol.* 9 June 2009; 7(6):e1000126.
3. Baas AF, et al. Activation of the tumor suppressor kinase LKB1 by the STE20-like pseudokinase STRAD. *EMBO J.* 2003; 22:3062-3072.
4. Zeqiraj, et al. ATP and MO25 $\alpha$  regulate the conformational state of the STRAD $\alpha$  pseudokinase and activation of the LKB1 tumour suppressor. *PLoS Biol.* June 2009; 7(6):e1000126.
5. Boudeau J, et al. MO25 isoforms interact with STRAD $\alpha/\beta$  enhancing their ability to bind, activate and localize LKB1. *EMBO J.* 2003; 22:5102-5114.
6. Puffenberger EG, et al. Polyhydramnios, megalencephaly and symptomatic epilepsy caused by a homozygous 7-kilobase deletion in LYK5. *Brain.* 2007; 130:1929-1941.

\* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.  
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.