SANTA CRUZ BIOTECHNOLOGY, INC.

STRAD (Y-25): sc-130882

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Peutz-Jeghers syndrome (PJS) is a rare hereditary disease characterized by melanocytic macules of the lips, gastrointestinal hamartomatous polyps and an increased risk for many classes of cancer. The serine/threonine kinase LKB1 (also designated STK11) has been identified as the gene mutated in PJS. LKB1 activity increases upon the binding of a regulatory complex consisting of the Ste20-related adaptor-α (STRAD α) pseudo kinase and the calcium binding protein 39 (MO25 α). STRAD determines the subcellular localization of LKB1 by initiating its translocation from the nucleus to the cytoplasm, thus regulating the tumor suppressor activity of LKB1.

REFERENCES

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3. Mehenni, H., et al. 1998. Loss of LKB1 kinase activity in Peutz-Jeghers syndrome, and evidence for allelic and locus heterogeneity. Am. J. Hum. Genet. 63: 1641-1650.
4. Resta, N., et al. 1998. STK11 mutations in Peutz-Jeghers syndrome and sporadic colon cancer. Cancer Res. 58: 4799-4801.
5. Bignell, G.R., et al. 1998. Low frequency of somatic mutations in the LKB1/Peutz-Jeghers syndrome gene in sporadic breast cancer. Cancer Res. 58: 1384-1386.
6. Avizienyte, E., et al. 1998. Somatic mutations in LKB1are rare in sporatic colorectal and testicular tumors. Cancer Res. 58: 2087-2090.
7. Baas, A.F., et al. 2003. Activation of the tumour suppressor kinase LKB1 by the Ste20-like pseudokinase STRAD. EMBO J. 22: 3062-3072.
8. Milburn, C.C., et al. 2004. Crystal structure of MO25 α in complex with the C-terminus of the pseudo kinase Ste20-related adaptor. Nat. Struct. Mol. Biol. 11: 193-200.
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CHROMOSOMAL LOCATION

Genetic locus: LYK5 (human) mapping to 17q23.3.

SOURCE

STRAD (Y-25) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of STRAD of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

STRAD (Y-25) is recommended for detection of STRAD of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for STRAD siRNA (h): sc-45241, STRAD shRNA Plasmid (h): sc-45241-SH and STRAD shRNA (h) Lentiviral Particles: sc-45241-V.

Molecular Weight (predicted) of STRAD: 48 kDa.

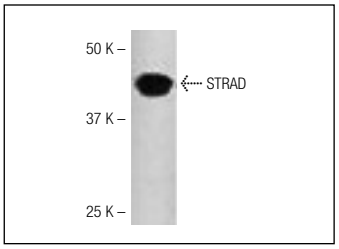
Molecular Weight (observed) of STRAD: 40-45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



STRAD (Y-25): sc-130882. Western blot analysis of STRAD expression in Jurkat whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.