

STRAD (G-8): sc-515635

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

- Jenne, D.E., et al. 1998. Peutz-Jeghers syndrome is caused by mutations in a novel serine/threonine kinase. *Nat. Genet.* 18: 38-43.
- Hemminki, A., et al. 1998. A serine/threonine kinase gene defective in Peutz-Jeghers syndrome. *Nature* 391: 184-187.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: STRADA (human) mapping to 17q23.3; Strada (mouse) mapping to 11 E1.

SOURCE

STRAD (G-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 357-377 near the C-terminus of STRAD of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STRAD (G-8) is available conjugated to agarose (sc-515635 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515635 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515635 PE), fluorescein (sc-515635 FITC), Alexa Fluor[®] 488 (sc-515635 AF488), Alexa Fluor[®] 546 (sc-515635 AF546), Alexa Fluor[®] 594 (sc-515635 AF594) or Alexa Fluor[®] 647 (sc-515635 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515635 AF680) or Alexa Fluor[®] 790 (sc-515635 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515635 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

STRAD (G-8) is recommended for detection of STRAD of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) 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 siRNA (m): sc-63087, STRAD shRNA Plasmid (h): sc-45241-SH, STRAD shRNA Plasmid (m): sc-63087-SH, STRAD shRNA (h) Lentiviral Particles: sc-45241-V and STRAD shRNA (m) Lentiviral Particles: sc-63087-V.

Molecular Weight (predicted) of STRAD: 48 kDa.

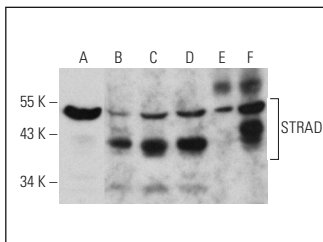
Molecular Weight (observed) of STRAD: 40-45 kDa.

Positive Controls: A549 cell lysate: sc-2413, NIH/3T3 whole cell lysate: sc-2210 or F9 cell lysate: sc-2245.

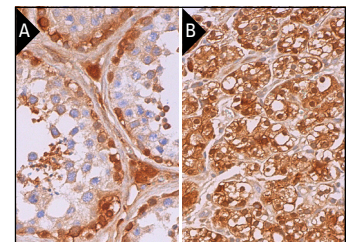
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



STRAD (G-8): sc-515635. Western blot analysis of STRAD expression in A549 (A), SP2/O (B), NIH/3T3 (C) and F9 (D) whole cell lysates and mouse eye (E) and mouse brain (F) tissue extracts.



STRAD (G-8): sc-515635. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear or cytoplasmic staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid gland tissue showing cytoplasmic and nuclear staining of glandular cells (B).

RESEARCH USE

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

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