

Anti-Mouse Lck, Clone 3A5 (56kDa)

(mouse monoclonal IgG_{2b/k})

Catalog # 05-435

Lot # 16188

Immunogen: GST-fusion protein corresponding to amino acids 1-225 of murine Lck.

Specificity: Recognizes and is specific for Lck of approximately 56 kDa. Clone 3A5.

Species Cross-reactivity: Human and rat. Other species cross-reactivity not tested.

Storage and Stability: Stable for 2 years at -20°C from date of shipment. Aliquot to avoid repeated freezing and thawing. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Formulation: 100mg of protein A purified IgG_{2b/k} in 100ml of 10mM PBS, pH7.4, and 15mM sodium azide. Frozen solution.

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS

Quality Control Testing

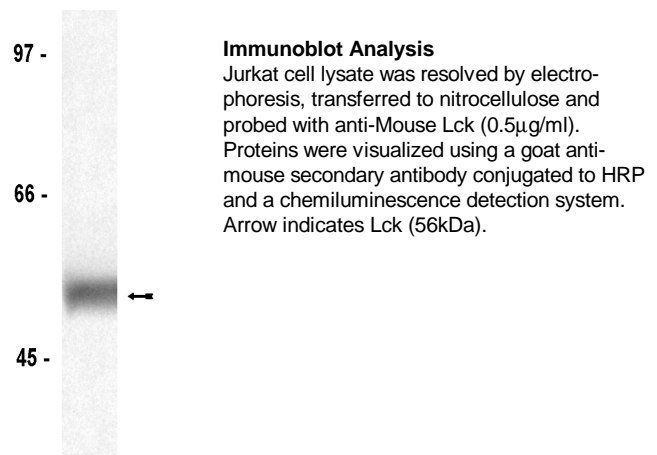
Immunoblot Analysis: 0.5µg/ml of this lot detected Lck in RIPA lysates from Jurkat cells.

Included Positive Antigen Control: Jurkat cell lysate (Catalog # 12-303). Use 20µg per lane for minigels.

Immunoprecipitation: 3µg of this lot immunoprecipitated Lck from 1mg of Jurkat RIPA lysate.

Additional Research Applications

Immunoprecipitation Kinase Assay: Reported to immunoprecipitate enzymatically active Lck as determined by immune complex kinase assays.



Background:

The lymphocyte-specific protein tyrosine kinase Lck is a member of the src family of non-receptor tyrosine kinases. The phosphorylation state and activity of Lck is regulated by the phosphatase CD 45. Abundant expression of Lck in normal and transformed T-cells, as well as in lymphoid tissue, suggests that Lck plays a role in lymphoid cell growth and differentiation. Furthermore, Lck is associated with interleukin receptors and is involved in Epstein-Barr virus lymphocyte immortalization.

General References:

Omri, B., *et al.*, *J. Neurochem.* **67**: 1360-1364, 1996.
Ley, S.C., *et al.*, *J. Cell. Biol.* **125**: 639-649, 1994.

Immunoblot Protocol

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on a cell lysate sample (cell lysis buffer: 50mM Tris-HCl, pH7.4; 1% NP-40; 0.25% sodium deoxycholate; 150mM NaCl; 1mM EGTA; 1mM PMSF; 1µg/ml each aprotinin, leupeptin, pepstatin; 1mM Na₃VO₄; 1mM NaF) and transfer the proteins to nitrocellulose. Wash the blotted nitrocellulose twice with water.
2. Block the blotted nitrocellulose in freshly prepared PBS containing 3% nonfat dry milk (PBS-MLK) for 20 minutes at 20-25°C with constant agitation.
3. Incubate the nitrocellulose with **0.5ng/ml of a-Mouse Lck**, diluted in freshly prepared PBS-MLK overnight with agitation at 4°C.
4. Wash the nitrocellulose twice with water.
5. Incubate the nitrocellulose in the secondary reagent of choice (a **goat a-mouse** HRP conjugated IgG, 1:3000 dilution was used) in PBS-MLK for 1.5 hours at room temperature with agitation.
6. Wash the nitrocellulose with water twice.
7. Wash the nitrocellulose in PBS-0.05% Tween 20 for 3-5 minutes.
8. Rinse the nitrocellulose in 4-5 changes of water.
9. Use detection method of choice (enhanced chemiluminescence was used).

Immunoprecipitation Protocol

1. Dilute the cell lysate before beginning the immunoprecipitation to roughly 1µg/µl total cell protein in a microcentrifuge tube with PBS.
2. Add **3ng of a-Mouse Lck** to 500µg-1mg cell lysate.
3. Gently rock the reaction mixture at 4°C overnight.
4. Capture the immunocomplex by adding 50µl of washed Protein A agarose bead slurry (25µl packed beads).
5. Gently rock the reaction mixture at 4°C for 2 hours.
6. Collect the agarose beads by pulsing (5 seconds in the microcentrifuge at 14,000 x g), and drain off the supernatant. Wash the beads 3 times with either ice-cold cell lysis buffer or PBS.
7. Resuspend the agarose beads in 50µl 2X Laemmli sample buffer.
8. The agarose beads can either be frozen for later use or suspended in Laemmli sample buffer and boiled for 5 minutes. Collect the beads by a microcentrifuge pulse. SDS-PAGE and subsequent immunoblot analysis can be performed on a sample of the supernatant.