

## **Product Information Sheet**

# Anti-Phospho-Lck[pY505]-162Dy

Catalog #: 3162004AClone: 4/LCK-Y505Package Size: 50 testsIsotype: Mouse IgG1

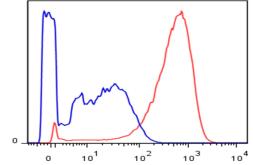
**Storage:** Store product at 4°C. Do not freeze. **Formulation:** Antibody stabilizer with 0.05% Sodium Azide

Cross Reactivity: Rat, Mouse, Human

#### **Technical Information**

**Validation:** Each lot of conjugated antibody is quality control tested by CyTOF<sup>®</sup> analysis of stained cells using the appropriate postive and negative cell staining and/or activation controls.

**Recommended Usage:** The suggested use is 1  $\mu$ l for up to 3 X 10<sup>6</sup> live cells in 100  $\mu$ l. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human Jurkat T cells were incubated for 15 minutes in media alone (blue) or with pervanadate (red). Cells were then fixed, permeabilized, and stained with 162Dy-anti-pLck [pT505] (4/LCK-Y505).

### Description

Lck is a member of the Src family of cytoplasmic protein-tyrosine kinases (PTKs). It is normally expressed in lymphoid cells - namely T and NK cells. Repression of Lck's catalytic activity occurs via phosphorylation at tyrosine 505 (Y505). Phosphorylation of Y505 is mediated by the Csk family of PTKs, and its dephosphorylation is mediated by the protein tyrosine phosphatase, CD45. When Lck is phosphorylated at this site, it assumes a folded tertiary structure which is enzymatically inactive. When CD45 dephosphorylates it at Y505, Lck is able to autophosphorylate its Y394, which leads to conformational changes in the catalytic domain that induce kinase activity. Antibody clone 4/LCK-Y505 recognized the protein sequence containing phosphorylated Y505 on Lck.

#### References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. Analytical Chemistry 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly multiparametric analysis by mass cytometry. J Immunol Methods 361 (1-2):1-20, 2010.

#### **Contact Information:**

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