

Store at
-20C
#45533**LAT (E3U6J) XP[®] Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, W-S, IP, IHC-P, FC-FP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 36, 38	Source/Isotype: Rabbit IgG	UniProt ID: #O43561	Entrez-Gene Id: 27040
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Product Usage Information**Application**

Western Blotting
Simple Western™
Immunoprecipitation
Immunohistochemistry (Paraffin)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:10 - 1:50
1:200
1:100 - 1:400
1:50 - 1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #41708.

Specificity/Sensitivity

LAT (E3U6J) XP[®] Rabbit mAb recognizes endogenous levels of total LAT protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu88 of human LAT protein.

Background

LAT, a transmembrane adaptor protein expressed in T, NK, and mast cells, is an important mediator for T cell receptor (TCR) signaling (1). Upon TCR engagement, activated Zap-70 phosphorylates LAT at multiple conserved tyrosine residues within SH2 binding motifs, exposing these motifs as the docking sites for downstream signaling targets (2,3). The phosphorylation of LAT at Tyr171 and Tyr220 enables the binding of Grb2, Gads/SLP-76, PLCγ1, and PI3 kinase through their SH2 domain and translocates them to the membrane. This process eventually leads to activation of the corresponding signaling pathways (1-4).

Background References

1. Wonerow, P. and Watson, S.P. (2001) *Oncogene* 20, 6273-83.
2. Zhang, W. et al. (1998) *Cell* 92, 83-92.
3. Paz, P. E. et al. (2001) *Biochem. J.* 356, 461-71.
4. Zhang, W. et al. (2000) *J. Biol. Chem.* 275, 23355-61.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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