

# PRODUCT INFORMATION



## LAT (Phospho-Tyr<sup>132</sup>)-biotin Peptide (trifluoroacetate salt)

Item No. 44662

<b>Synonyms:</b>	Biotin-LAT (Phospho-Tyr <sup>161</sup> ) Peptide, LAT (Phospho-Tyr <sup>161</sup> )-biotin Peptide, Linker for Activation of T Cells (Phospho-Tyr <sup>132</sup> )-biotin Peptide	Biotin-Asp-Asp-Tyr-His-Asn-Pro-Gly-Tyr(PO <sub>3</sub> H <sub>2</sub> )-Leu-Val-Val-Leu-Pro-Asp-Ser-Thr-OH • XCF <sub>3</sub> COOH
<b>Peptide Sequence:</b>	Biotin-DDYHNPG-pY-LVVLPDST-OH	
<b>MF:</b>	C <sub>91</sub> H <sub>132</sub> N <sub>21</sub> O <sub>33</sub> PS • XCF <sub>3</sub> COOH	
<b>FW:</b>	2,111.2	
<b>Purity:</b>	≥95%	
<b>Supplied as:</b>	A solid	
<b>Storage:</b>	-20°C	
<b>Stability:</b>	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

LAT (phospho-Tyr<sup>132</sup>)-biotin peptide (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the LAT (phospho-Tyr<sup>132</sup>)-biotin peptide (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. LAT (phospho-Tyr<sup>132</sup>)-biotin peptide (trifluoroacetate salt) is soluble (≥10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of LAT (phospho-Tyr<sup>132</sup>)-biotin peptide (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. LAT (phospho-Tyr<sup>132</sup>)-biotin peptide (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

### Description

LAT (phospho-Tyr<sup>132</sup>)-biotin peptide is a biotinylated peptide corresponding to amino acids 125 to 140 or 154 to 169 of the short and long splice variants, respectively, of linker for activation of T cells (LAT).<sup>1,2</sup> LAT is a transmembrane adaptor protein that is subject to phosphorylation at Tyr<sup>132</sup>/Tyr<sup>161</sup> by phospholipase C  $\gamma$ 1 (PLC $\gamma$ 1) upon T cell receptor (TCR) activation.<sup>1</sup> This product can be used in the detection of antibodies targeting LAT (phospho-Tyr<sup>132</sup>) in biological samples.

### References

1. Wange, R.L. LAT, the linker for activation of T cells: a bridge between T cell-specific and general signaling pathways. *Sci. STKE* **2000(63)**, re1 (2000).
2. Zhang, W., Sloan-Lancaster, J., Kitchen, J., et al. LAT: The ZAP-70 tyrosine kinase substrate that links T cell receptor to cellular activation. *Cell* **92(1)**, 83-92 (1998).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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