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Oncogene LCK

National Cancer Institute

Source

National Cancer Institute. *Oncogene LCK*. NCI Thesaurus. Code C18334.

Human Oncogene LCK is a mutated variant of LCK Gene, which encodes p56LCK, a lymphocyte-specific tyrosine protein kinase with an SH2 and SH3 domain. LCK may participate in T-cell activation; p56LCK regulates allelic exclusion at the TCR beta locus. It binds to CD4, CD8 and IL-2R beta chain cytoplasmic domains. p56LCK is quickly activated by mlg cross-linking on B-cells or by TCR cross-linking. Pre-TCR co-localizes with p56LCK kinase in membrane rafts resulting in phosphorylation of CD3-epsilon and ZAP70. p56LCK, in the TCR complex, activates DNA binding of STAT5A and STAT5B. Oncogene LCK disrupts normal cell function.