

# Natural killer cell signal transduction mechanism mediated by lipopolysaccharide activation

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The increase in human natural killer cell activity (NKCA) in samples of peripheral blood mononuclear cells (PBMC) elicited by their incubation with bacterial lipopolysaccharide (LPS), appears to result from an indirect process; various cytokines, expressed after an initial LPS activation of mCD14 monocyte receptors, enhance NK cell lytic function. In an attempt to correlate changes in NKCA with NKC signal transduction mechanisms mediated by LPS, we have analyzed the effect of this substance on the lytic activity and tyrosine phosphorylation pattern of PBMC samples before and after NKC purification (P). PBMC, obtained from healthy, drug-free volunteers (n=7) of the Blood Bank of the J.J. Aguirre Hospital, University of Chile were monocyte depleted (plastic adherence), washed (pH 7.4 buffered-saline) and suspended in fetal bovine serum heat-inactivated medium. Purified CD56+ cells (CD56+ > 95%, flow cytometry) were obtained by immunomagnetic isolation and NKCA was determined using K-562