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# Lipopolysaccharide

National Cancer Institute

## Source

National Cancer Institute. *Lipopolysaccharide*. NCI Thesaurus. Code C101788.

An endotoxin and biologically active component of the Gram-negative bacterial cell wall that is a Toll-like receptor 4 (TLR4) agonist with potential immunostimulatory activity. Upon internalization, lipopolysaccharide (LPS) activates TLR4 which in turn activates the NFkappaB pathway, in addition to mitogen-activated protein kinases signaling pathways. This leads to the release of proinflammatory cytokines and stimulates an innate immune response against vaccine antigens.