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TLR4 Agonist GSK1795091

National Cancer Institute

Source

National Cancer Institute. *TLR4 Agonist GSK1795091*. NCI Thesaurus. Code C128558.

A toll-like receptor 4 (TLR4) agonist, with potential immunoadjuvant activity. Upon administration, GSK1795091 binds to and activates TLR4, thereby stimulating dendritic cells (DCs), monocytes and macrophages. This activation results in the production of pro-inflammatory cytokines, including interferon gamma (IFN-g), tumor necrosis factor-alpha (TNF-a) and the interleukins (IL), IL-1 beta, -6 and -12. This may induce a T helper cell-1 (Th1) immune response and, upon co-administration of a vaccine containing tumor-associated antigens (TAAs), activates a cytotoxic T-lymphocyte (CTL) response against tumor cells expressing those TAAs. TLR4, a member of the TLR family, plays a key role in the activation of innate immunity.