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Resiquimod Topical Gel

National Cancer Institute

Source

National Cancer Institute. *Resiquimod Topical Gel*. NCI Thesaurus. Code C88259.

A topical gel containing the Toll-like receptor (TLR) agonist resiquimod, an imidazoquinolinamine and with potential immunomodulating activity. Resiquimod binds to TLR7 and 8, mainly on dendritic cells, macrophages, and B-lymphocytes, and activates the TLR signaling pathway, resulting in the induction of the nuclear translocation of transcription activator NF- κ B and activation of other transcription factors; subsequently, gene expression increases and the production of cytokines increases, especially interferon-alpha (INF- α), resulting in the enhancement of T-helper 1 (Th1) immune responses. In addition, topical application of resiquimod appears to activate epidermal Langerhans cells, leading to an enhanced activation of T-lymphocytes.