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# Navarixin

National Cancer Institute

## Source

National Cancer Institute. *Navarixin*. NCI Thesaurus. Code C156730.

An orally available small molecule antagonist of the C-X-C motif chemokine receptor 1 (CXCR1; interleukin-8 receptor alpha; IL8RA) and 2 (CXCR2; interleukin-8 receptor beta; IL8RB), with potential immunomodulating and antineoplastic activities. Upon administration, navarixin binds to and inhibits the activation of CXCR 1 and 2. This inhibits CXCR1/2-mediated signaling, reduces both recruitment and migration of immunosuppressive myeloid-derived suppressor cells (MDSCs) and neutrophils in the tumor microenvironment (TME), inhibits inflammatory processes and abrogates the immunosuppressive nature of the TME. This allows effector cells, such as natural killer (NK) cells and cytotoxic T-lymphocytes (CTLs), to kill and eliminate cancer cells. This inhibits tumor cell migration, metastasis, angiogenesis and tumor cell proliferation. CXCR 1 and 2, G protein-coupled receptor proteins located on myeloid cells and certain tumor cells, play key roles in the immunosuppressive nature of the TME, tumor metastasis, therapy-resistance, myeloid cell suppression, and inflammation.