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Baricitinib

National Cancer Institute

Source

National Cancer Institute. *Baricitinib*. NCI Thesaurus. Code C127012.

An orally bioavailable inhibitor of Janus kinases 1 and 2 (JAK1/2), with potential anti-inflammatory, immunomodulating and antineoplastic activities. Upon administration, baricitinib binds to JAK1/2, which inhibits JAK1/2 activation and leads to the inhibition of the JAK-signal transducers and activators of transcription (STAT) signaling pathway. This decreases the production of inflammatory cytokines and may prevent an inflammatory response. In addition, baricitinib may induce apoptosis and reduce proliferation of JAK1/2-expressing tumor cells. JAK kinases are intracellular enzymes involved in cytokine signaling, inflammation, immune function and hematopoiesis; they are also upregulated and/or mutated in various tumor cell types.