

[Open Peer Review on Qeios](#)

JAK1 Inhibitor AZD4205

National Cancer Institute

Source

National Cancer Institute. *JAK1 Inhibitor AZD4205*. NCI Thesaurus. Code C156774.

An orally available inhibitor of Janus-associated kinase 1 (JAK1), with potential antineoplastic activity. Upon oral administration, AZD4205 inhibits JAK-dependent signaling and may lead to an inhibition of cellular proliferation in JAK1-overexpressing tumor cells. The JAK-STAT (signal transducer and activator of transcription) signaling pathway is a major mediator of cytokine activity and is often dysregulated in a variety of tumor cell types. Additionally, JAK1 may be a primary driver of STAT3 phosphorylation and signaling, which plays a role in neoplastic transformation, resistance to apoptosis, tumor angiogenesis, metastasis, immune evasion, and treatment resistance.