

# AG-490

## JAK inhibitor

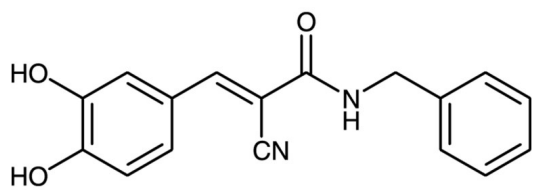
AG-490 is a potent inhibitor of the JAK-2 tyrosine kinase. In acute lymphoblastic leukemia (ALL) cells, which abundantly express JAK-2, AG-490 dose-dependently inhibited DNA synthesis, blocked cell growth and induced apoptosis. At 5  $\mu\text{M}$ , AG-490 almost completely blocked the growth of all pre-B ALL cells but had no significant effect on the growth of mitogen-stimulated normal B or T cells, B-cell lymphoma or T-cell leukemia cells. AG-490 does not significantly inhibit other kinases such as Lck, Lyn, Btk, Syk and Src. It blocks interleukin-7-induced JAK kinase activity in T-cells (JAK-1, JAK-3) and the consequent phosphorylation of PI-3 kinase. AG-490 is cell permeable and is a valuable tool for studying the cellular role of JAK kinases in signal transduction.

**Citations:** 16

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**Manuals, SDS & CofA**

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## Handling & Storage

|                          |  |
|--------------------------|--|
| <b>Use/Stability</b>     | As indicated on product label or CoA when stored as recommended. Store, as supplied, at -20°C for up to 1 year. Store solutions at -20°C for up to 2 months. |
| <b>Handling</b>          | Protect from light.  |
| <b>Long Term Storage</b> | -20°C  |
| <b>Shipping</b>          | Ambient Temperature  |

**Regulatory Status** RUO - Research Use Only

## Product Details

|                         |  |
|-------------------------|--|
| <b>Alternative Name</b> | N-Benzyl-3,4-dihydroxybenzylidenecyanoacetamide                                    |
| <b>Appearance</b>       | Tan solid.   |
| <b>CAS</b>              | 133550-30-8  |
| <b>Couple Target</b>    | JAK  |
| <b>Couple Type</b>      | Inhibitor  |
| <b>Formula</b>          | $C_{17}H_{14}N_2O_3$   |
| <b>MW</b>               | 294.3  |
| <b>Purity</b>           | ≥98% (TLC)   |
| <b>Solubility</b>       | Soluble in DMSO (30mg/ml), dimethyl formamide (40mg/ml) or 100% ethanol (10mg/ml). |

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