

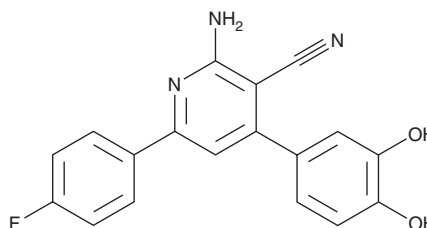
# PRODUCT INFORMATION



## IL-4 Inhibitor

Item No. 32548

**CAS Registry No.:** 1332184-63-0  
**Formal Name:** 2-amino-4-(3,4-dihydroxyphenyl)-6-(4-fluorophenyl)-3-pyridinecarbonitrile  
**MF:** C<sub>18</sub>H<sub>12</sub>FN<sub>3</sub>O<sub>2</sub>  
**FW:** 321.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 261, 355 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

IL-4 inhibitor is supplied as a crystalline solid. A stock solution may be made by dissolving the IL-4 inhibitor in the solvent of choice, which should be purged with an inert gas. IL-4 inhibitor is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of IL-4 inhibitor in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

IL-4 inhibitor is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IL-4 inhibitor should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. IL-4 inhibitor has a solubility of approximately 0.1 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

IL-4 inhibitor is an inhibitor of IL-4.<sup>1</sup> It binds to IL-4 with a K<sub>d</sub> value of 1.8 μM and inhibits IL-4 activity in a cell-based reporter assay (EC<sub>50</sub> = 1.81 μM). It is selective for IL-4 over IL-13 (EC<sub>50</sub> = 18.2 μM). IL-4 inhibitor inhibits IL-4-induced STAT6 phosphorylation in THP-1 monocytes (EC<sub>50</sub> = 3.1 μM), indicating inhibition of the IL-4-JAK1-STAT6 signaling pathway.

### Reference

1. Quinnell, S.P., Leifer, B.S., Nestor, S.T., *et al.* A small-molecule inhibitor to the cytokine interleukin-4. *ACS Chem. Biol.* **15**(10), 2649-2654(2020).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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