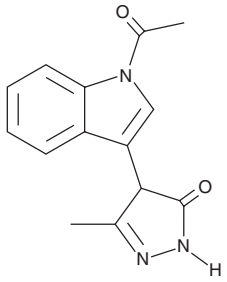
PRODUCT INFORMATION

StA-IFN-1

Item No. 22402

CAS Registry No.:	300839-31-0
Formal Name:	4-(1-acetyl-1H-indol-3-yl)-2,4-dihydro-5-methyl-3H-pyrazol-3-one
MF:	$C_{14}H_{13}N_3O_2$
FW:	255.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 229, 305 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

StA-IFN-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the StA-IFN-1 in the solvent of choice. StA-IFN-1 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of StA-IFN-1 in these solvents is approximately 5 and 3 mg/ml, respectively.

StA-IFN-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, StA-IFN-1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. StA-IFN-1 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

StA-IFN-1 is an inhibitor of the interferon (IFN) induction pathway with an IC_{50} value of 4.1 µM in a GFP reporter assay for IFN induction similar to TPCA-1 (Item No. 15115), which specifically inhibits the IKKβ component of the IFN induction pathway.[1] It does not show inhibitory activity in a GFP reporter assay for IFN signaling in which ruxolitinib (Item No. 11609), which is specific for the IFN signaling component JAK1, is active. StA-IFN-1 reduces the levels of IFN-β, but not ISG MxA, mRNA, suggesting that it is selective for the IFN induction pathway and not the IFN signaling pathway.

Reference

1. Gage, Z.O., Vasou, A., Gray, D.W., *et al*. Identification of novel inhibitors of the type I interferon induction pathway using cell-based high-throughput screening. *J. Biomol. Screen.* **21(9)**, 978-988 (2016).

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