

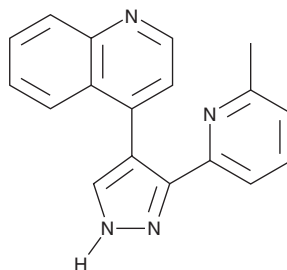
# PRODUCT INFORMATION



## A-77-01

Item No. 18396

**CAS Registry No.:** 607737-87-1  
**Formal Name:** 4-[3-(6-methyl-2-pyridinyl)-1H-pyrazol-4-yl]-quinoline  
**MF:** C<sub>18</sub>H<sub>14</sub>N<sub>4</sub>  
**FW:** 286.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 229, 286 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

A-77-01 is supplied as a crystalline solid. A stock solution may be made by dissolving the A-77-01 in the solvent of choice. A-77-01 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of A-77-01 in these solvents is approximately 1, 14, and 5 mg/ml, respectively.

A-77-01 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, A-77-01 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. A-77-01 has a solubility of approximately 0.04 mg/ml in a 1:20 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

A-77-01 is a potent inhibitor of the TGF-β1 receptor ALK5 (IC<sub>50</sub> = 25 nM).<sup>1</sup> It has no effects on BMP-regulated transcriptional activity or MAPK pathways. A-77-01 efficiently prevents the growth inhibitory effects of TGF-β on lung epithelial Mv1Lu cells.<sup>1</sup> It completely blocks phosphorylation of SMAD2 by TGF-β in human keratinocyte HaCaT cells at 1 μM. A-77-01 prevents morphological and gene expression changes characteristic of epithelial-to-mesenchymal transition in NMuMG cells treated with TGF-β.<sup>1</sup>

### Reference

1. Tojo, M., Hamashima, Y., Hanyu, A., *et al.* The ALK-5 inhibitor A-83-01 inhibits Smad signaling and epithelial-to-mesenchymal transition by transforming growth factor-β. *Cancer Sci.* **96(11)**, 791-800 (2005).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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