

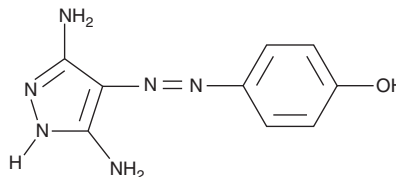
# PRODUCT INFORMATION



**CAY10574**

Item No. 10011247

**CAS Registry No.:** 140651-18-9  
**Formal Name:** 4-[(3,5-diamino-1H-pyrazol-4-yl)azo]-phenol  
**MF:** C<sub>9</sub>H<sub>10</sub>N<sub>6</sub>O  
**FW:** 218.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 230, 365 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

CAY10574 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10574 in the solvent of choice, which should be purged with an inert gas. CAY10574 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CAY10574 in these solvents is approximately 0.5 mg/ml.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

## Description

Cyclin-dependent kinases (CDKs) play a key role in regulating cell division by phosphorylating distinct substrates in different phases of the cell cycle. Cell cycle deregulation in many cancers often results from altered CDK activity. Thus, CDKs are potential pharmacological targets for anticancer agents. CAY10574 is a potent, selective inhibitor of Cdk9 *in vitro* with an IC<sub>50</sub> value of 0.35 μM. It is also a competitive inhibitor of Cdk2-cyclin E with respect to ATP, with K<sub>i</sub> and IC<sub>50</sub> values of 13.3 and 20 μM, respectively.<sup>1</sup> CAY10574 reduces the population of S-phase cells of the cancer cell line HT-29 and blocks proliferation of several other cancer cell lines including MCF-7, HOS, G361, and K562 cells with IC<sub>50</sub> values of 33, 49, 64, and 62 μM, respectively.<sup>1</sup>

## Reference

1. Kryštof, V., Cankar, P., Fryšová, I., et al. 4-Arylazo-3,5-diamino-1H-pyrazole CDK inhibitors: SAR study, crystal structure in complex with CDK2, selectivity, and cellular effects. *J. Med. Chem.* **49**, 6500-6509 (2006).

### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/04/2022

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM