

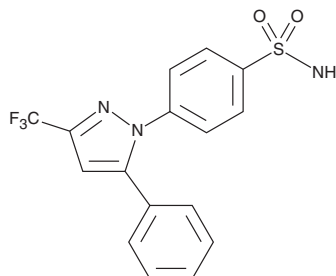
# PRODUCT INFORMATION



**CAY10452**

Item No. 10075

**CAS Registry No.:** 170569-87-6  
**Formal Name:** 4-[5-phenyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-benzenesulfonamide  
**Synonym:** PTPBS  
**MF:** C<sub>16</sub>H<sub>12</sub>F<sub>3</sub>N<sub>3</sub>O<sub>2</sub>S  
**FW:** 367.3  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 203, 253 nm



## Laboratory Procedures

For long term storage, we suggest that CAY10452 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10452 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10452 in the solvent of choice. CAY10452 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of CAY10452 in these solvents is approximately 30 mg/ml.

CAY10452 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10452 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. CAY10452 has a solubility of approximately 0.1 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Inhibitors of cyclooxygenase (COX) are generally grouped according to selectivity for COX-1 versus COX-2.<sup>1,2</sup> However, many COX inhibitors also show an antitumor, pro-apoptotic activity that is distinct from COX inhibition - celecoxib (Item No. 10008672) is an example.<sup>3</sup> CAY10452 is a celecoxib analog that retains potent, selective COX-2 inhibitory activity (IC<sub>50</sub> = 32 nM), but does not induce apoptosis in prostate cancer cell lines even at 100 μM.<sup>4</sup> CAY10452 is thus a clean, selective tool for the inhibition of COX-2.

## References

1. Khanna, I.K., Yu, Y., Huff, R.M., *et al.* Selective cyclooxygenase-2 inhibitors: Heteroaryl modified 1,2-diarylimidazoles are potent, orally active antiinflammatory agents. *J. Med. Chem.* **43**, 3168-3185 (2000).
2. FitzGerald, G.A. and Loll, P. COX in a crystal ball: Current status and future promise of prostaglandin research. *J. Clin. Invest.* **107(11)**, 1335-1337 (2001).
3. Dempke, W., Rie, C., Grothey, A., *et al.* Cyclooxygenase-2: A novel target for cancer chemotherapy? *J. Cancer Res. Clin. Oncol.* **127**, 411-417 (2001).
4. Song, X., Lin, H.-P., Johnson, A.J., *et al.* Cyclooxygenase-2, player or spectator in cyclooxygenase-2 inhibitor-induced apoptosis in prostate cancer cells. *Journal of the National Cancer Institute* **94(8)**, 585-591 (2002).

### 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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