

# PRODUCT INFORMATION



**A01**

Item No. 26137

**CAS Registry No.:** 1007647-73-5  
**Formal Name:** [4-[[4-chloro-3-(trifluoromethyl)phenyl]sulfonyl]-1-piperazinyl]-[4-(5-methyl-1H-pyrazol-1-yl)phenyl]-methanone

**MF:** C<sub>22</sub>H<sub>20</sub>ClF<sub>3</sub>N<sub>4</sub>O<sub>3</sub>S

**FW:** 512.9

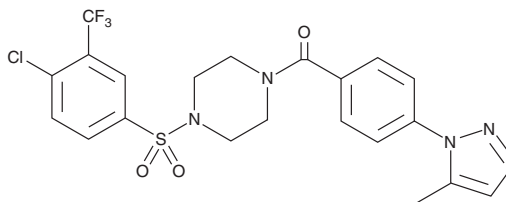
**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 277 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

A01 is supplied as a crystalline solid. A stock solution may be made by dissolving the A01 in the solvent of choice. A01 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of A01 in these solvents is approximately 15 and 25 mg/ml, respectively.

A01 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, A01 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. A01 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

A01 is an inhibitor of Smad ubiquitination regulatory factor 1 (Smurf1) ubiquitin ligase ( $K_d = 3.67$  nM).<sup>1</sup> It inhibits Smurf1-mediated ubiquitination of Smad1/5 and increases Smad1/5 protein levels in C2C12 cells stimulated with bone morphogenic protein 2 (BMP2) in a concentration-dependent manner. A01 (2 μM) increases BMP2-induced mRNA expression of alkaline phosphatase (ALP), osteocalcin, and type-1 collagen in MC3T3-E1 mouse pre-osteoblasts.

## Reference

1. Cao, Y., Wang, C., Zhang, X., *et al.* Selective small molecule compounds increase BMP-2 responsiveness by inhibiting Smurf1-mediated Smad1/5 degradation. *Sci. Rep.* **4**, 4965 (2014).

### 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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