

# PRODUCT INFORMATION



**CAY10727**

Item No. 26543

**CAS Registry No.:** 1671088-84-8  
**Formal Name:** 2-chloro-N-[3-[1-[(2'-chloro[1,1'-biphenyl]-3-yl)methyl]-2,5-dioxo-4-imidazolidinyl]propyl]-ethanimidamide

**MF:** C<sub>21</sub>H<sub>22</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>2</sub>

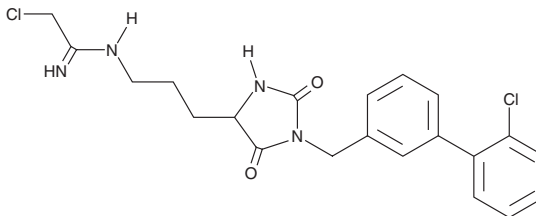
**FW:** 433.3

**Purity:** ≥90%

**Supplied as:** A solution in ethanol

**Storage:** -20°C

**Stability:** ≥1 year



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

## Laboratory Procedures

CAY10727 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of CAY10727 in these solvents is approximately 30 mg/ml.

For maximum solubility in aqueous buffers, evaporate the ethanol and dissolve in DMSO. The DMSO solution of CAY10727 should be diluted with the aqueous buffer of choice. CAY10727 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method.

## Description

CAY10727 is an inhibitor of protein arginine deiminase 3 (PAD3;  $k_{\text{inact}}/K_i = 15,600 \text{ M}^{-1}\text{min}^{-1}$ ).<sup>1</sup> It is selective for PAD3 over PAD1, -2, and -4 ( $k_{\text{inact}}/K_s = 360, 1,110, \text{ and } 1,460 \text{ M}^{-1}\text{min}^{-1}$ , respectively).

## Reference

1. Jamali, H., Khan, H.A., Stringer, J.R., *et al.* Identification of multiple structurally distinct, nonpeptidic small molecule inhibitors of protein arginine deiminase 3 using a substrate-based fragment method. *J. Am. Chem. Soc.* **137**(10), 3616-3621 (2015).

### 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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