

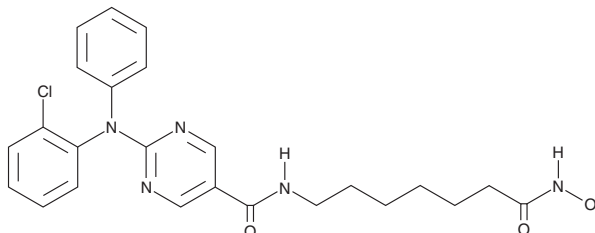
# PRODUCT INFORMATION



## ACY-241

Item No. 26173

**CAS Registry No.:** 1316215-12-9  
**Formal Name:** 2-[(2-chlorophenyl)phenylamino]-N-[7-(hydroxyamino)-7-oxoheptyl]-5-pyrimidinecarboxamide  
**Synonym:** Citarinostat  
**MF:** C<sub>24</sub>H<sub>26</sub>ClN<sub>5</sub>O<sub>3</sub>  
**FW:** 468.0  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 284 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

ACY-241 is supplied as a crystalline solid. A stock solution may be made by dissolving the ACY-241 in the solvent of choice. ACY-241 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of ACY-241 in these solvents is approximately 5 mg/ml.

ACY-241 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ACY-241 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ACY-241 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

ACY-241 is an inhibitor of histone deacetylase 6 (HDAC6; IC<sub>50</sub> = 2.6 nM).<sup>1</sup> It is selective for HDAC6 over HDAC1-3, HDAC7, and HDAC9 (IC<sub>50</sub>s = 35, 45, 46, 7,300, and 137 nM, respectively), as well as HDAC4, HDAC5, and HDAC9 (IC<sub>50</sub> = >20,000 nM for all). It reduces proliferation of A2780, TOV-21G, and MDA-MB-231 cells when used at a concentration of 3 μM and completely inhibits it and induces apoptosis at a concentration of 10 μM. ACY-241, when used in combination with paclitaxel (Item No. 10461), inhibits proliferation in MiaPaCa-2, TOV-21G, and T47D cells. It also reduces tumor growth in a MiaPaCa-2 mouse xenograft model when administered at a dose of 50 mg/kg in combination with paclitaxel. ACY-241, in combination with the somatostatin receptor agonist pasireotide (Item No. 24092), reduces hepatorenal cystogenesis in a rat model of polycystic liver disease.<sup>2</sup>

### References

- Huang, P., Almeciga-Pinto, I., Jarpe, M., *et al.* Selective HDAC inhibition by ACY-241 enhances the activity of paclitaxel in solid tumor models. *Oncotarget* **8(2)**, 2694-2707 (2017).
- Lorenzo Pisarello, M., Masyuk, T.V., Gradilone, S.A., *et al.* The combination of an HDAC6 inhibitor and a somatostatin receptor agonist synergistically reduces hepato-renal cystogenesis in an animal model of polycystic liver disease. *Am. J. Pathol.* **188(4)**, 981-994 (2018).

#### 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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