

Product Datasheet

ACY-1215

Catalog No. **BP-01866** · CAS **1316214-52-4** · Form **free base** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-09-07**

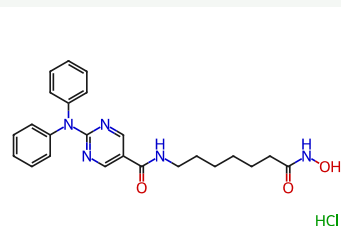
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Target HDAC; Apoptosis	Research area Cancer
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Molecular formula **C₂₄H₂₈ClN₅O₃**

Molecular weight **469.9640**

STRUCTURE



DESCRIPTION

Ricolinostat (ACY-1215) is a potent and selective HDAC6 inhibitor, with an IC₅₀ of 5 nM. ACY-1215 also inhibits HDAC1, HDAC2, and HDAC3 with IC₅₀s of 58, 48, and 51 nM, respectively.

BIOLOGICAL ACTIVITY

In Vitro

Ricolinostat (ACY-1215) has slight activity against HDAC8 (IC₅₀=0.1 μM), and has minimal activity (IC₅₀>1 μM) against HDAC4, HDAC5, HDAC7, HDAC9, HDAC11, Sirtuin1, and Sirtuin2. The effect of Ricolinostat (ACY-1215) on multiple myeloma (MM) cell viability is determined with MTT assays using MM cell lines. Exposure of MM cell lines for 48 hours results in dose-dependent decreased viability, with IC₅₀ values ranging from 2-8 μM. Ricolinostat (ACY-1215) demonstrates significant activity in the MM PS-341-resistant cell line (ANBL-6.BR), demonstrating the ability of Ricolinostat (ACY-1215) to overcome PS-341 resistance.

In Vivo

Mice treated with Ricolinostat (ACY-1215), PS-341, or Ricolinostat plus PS-341 show a significant delay in tumor growth (P=0.01, P=0.006, and P<0.0001, respectively). Combined treatment with Ricolinostat and PS-341 shows significant suppression of tumor growth and significantly prolonged overall survival (OS) compare with the control group (17 days in the control vs 40 days in the combination-treated group, P<0.0001) and the Ricolinostat (ACY-1215)-treated group (22 days in the PS-341 group vs 40 days in the combination-treated group, P<0.0001). Weight loss in the combination-treated group is between 4% and 12% compare with the same-day control group values during treatment, with complete recovery after the last injection. As is observed in the plasmacytoma model, a significant therapeutic advantage is found by combining Ricolinostat with PS-341 compare with either agent alone.

SOLUBILITY

Soluble in DMSO

REFERENCES

[1]. Santo L, et al. Preclinical activity, pharmacodynamic, and pharmacokinetic properties of a selective HDAC6 inhibitor, ACY-1215, in combination with PS-341 in multiple myeloma. *Blood*. 2012 Mar 15;119(11):2579-89.

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Lot CoA and SDS are separate documents.