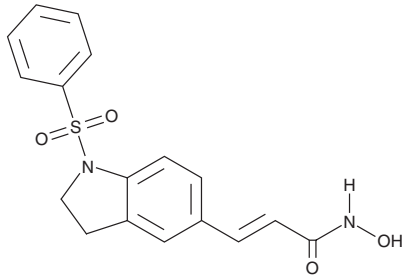
PRODUCT INFORMATION

Imofinostat

Item No. 46615

CAS Registry No.:	1338320-94-7
Formal Name:	3-[2E,3-dihydro-1-(phenylsulfonyl)-1H-indol-5-yl]-N-hydroxy-2-propenamide
Synonyms:	ABT-301, MPT0E028, TMU-C-0012
MF:	$C_{17}H_{16}N_2O_4S$
FW:	344.4
Purity:	≥95%
Supplied as:	A 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

Imofinostat is supplied as a solid. A stock solution may be made by dissolving the imofinostat in the solvent of choice, which should be purged with an inert gas. Imofinostat is sparingly soluble (1-10 mg/ml) in ethanol and soluble (≥10 mg/ml) in DMSO.

Description

Imofinostat is an inhibitor of histone deacetylase 1 (HDAC1), -2, and -6 (IC_{50}s = 53, 106.2, and 29.5 nM, respectively).[1] It is selective for HDAC1, -2, and -6 over HDAC8 and -4 (IC_{50}s = 2,532 and >10,000 nM, respectively). Imofinostat increases the acetylation and activity of MAPK 1 in WI38 human lung fibroblasts at 1 µM and reduces connective tissue growth factor (CTGF), α-smooth muscle actin (α-SMA), and fibronectin in the same cells when stimulated by TGF-β.[2] It decreases lung fibrosis in a mouse model of pulmonary fibrosis induced by bleomycin (Item No. 13877) at 25-100 mg/kg. It induces cell cycle arrest at the G_0/G_1 phase and apoptosis in HCT116 colorectal cancer and Ramos (RA 1) B cell lymphoma cells.[1,3] Imofinostat (50-200 mg/kg) reduces tumor growth in HCT116 and BJAB B-cell lymphoma mouse xenograft models and increases survival in a Ramos (RA 1) mouse xenograft model.

References

1. Huang, H.-L., Lee, H.-Y., Tsai, A.-C., *et al*. Anticancer activity of MPT0E028, a novel potent histone deacetylase inhibitor, in human colorectal cancer HCT116 cells *in vitro* and *in vivo*. *PLoS One* **7(8)**, e43645 (2012).
2. Liu, C.H., Lee, H.S., Liou, J.P., *et al*. MPT0E028, a novel pan-HDAC inhibitor, prevents pulmonary fibrosis through inhibition of TGF-β-induced CTGF expression in human lung fibroblasts: Involvement of MKP-1 activation. *Eur. J. Pharmacol*. **977**, 176711 (2024).
3. Huang, H.L., Peng, C.Y., Lai, M.J., *et al*. Novel oral histone deacetylase inhibitor, MPT0E028, displays potent growth-inhibitory activity against human B-cell lymphoma *in vitro* and *in vivo*. *Oncotarget* **6(7)**, 4976-4991 (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.

WARRANTY AND LIMITATION OF REMEDY
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