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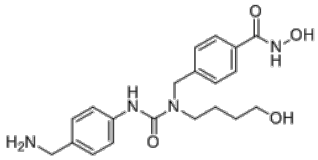
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	Suprastat
Cat. No.	:	PC-72090
CAS No.	:	2707431-93-2
Molecular Formula	:	$C_{20}H_{26}N_4O_4$
Molecular Weight	:	386.452
Target	:	HDAC
Solubility	:	10 mM in DMSO



Biological Activity

Suprastat is a novel potent, selective inhibitor of histone deacetylase 6 (**HDAC6**) with IC50 of 0.9 nM.
Suprastat did not show activity against the class IV isoform HDAC11 up to 50 uM, >290-fold selectivity over class I isoform HDAC1−HDAC3 and HDAC8 and 1000-fold selectivity over class IIa isoform HDAC4, HDAC5, HDAC7, and HDAC9.
Suprastat increased the levels of acetylated α-tubulin (Ac-α-tubulin) in WM164 human melanoma cell line at 0.1-10 uM, the increase in Ac-α-tubulin was also associated with a slight increase in the levels of acetylated histone H3 (Ac-H3).
Suprastat mediated immunomodulatory effects by affecting HDAC6 interaction with the STAT3 transcription factor, decreased expression of IL10 gene, dose-dependent increase in the levels of Ac-α-tubulin in compound treated RAW 264.7 macrophages, decreased Y705 phosphorylation of STAT3.
A combination of Suprastat and anti-PD1 immunotherapy enhances antitumor immune response, mediated by a decrease of protumoral M2 macrophages and increased infiltration of antitumor CD8+ effector and memory T-cells.

References

Satish Noonepalle, et al. ***J Med Chem.*** 2020 Sep 24;63(18):10246-10262.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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