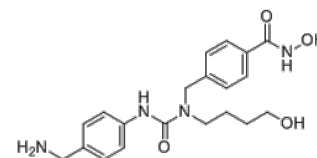


**Product Name** : Suprastat  
**Cat. No.** : PC-72090  
**CAS No.** : 2707431-93-2  
**Molecular Formula** : C<sub>20</sub>H<sub>26</sub>N<sub>4</sub>O<sub>4</sub>  
**Molecular Weight** : 386.452  
**Target** : HDAC  
**Solubility** : 10 mM in DMSO



## Biological Activity

Suprastat is a novel potent, selective inhibitor of histone deacetylase 6 (**HDAC6**) with IC<sub>50</sub> 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<sup>+</sup> 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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