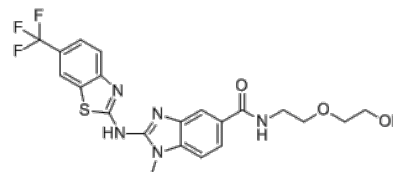


Product Name : HPPE
Cat. No. : PC-73337
CAS No. : 1325721-55-8
Molecular Formula : C₂₁H₂₀F₃N₅O₃S
Molecular Weight : 479.478
Target : Keap1-Nrf2
Solubility : 10 mM in DMSO



Biological Activity

HPPE is a specific nonelectrophilic and physiological **Bach1 inhibitor** via heme-binding sites of Bach1 protein, derepresses Bach1-mediated repression.

HPPE induces up-regulation of Hmox1 mRNA is mediated by Bach1 inhibition in vivo.

Nuclear export of Bach1 is required for HPPE-mediated Bach1 derepression, HPPE has an additional activity in Nrf2 stabilization besides Bach1 inhibition.

Pre- and posttreatment of HPPE is neuroprotective against acute MPTP neurotoxicity.

HPPE significantly reduced MPTP-induced increases in TNF- α and Mcp-1 mRNA levels, HPPE significantly increased mRNA levels of Nrf2 compared to MPTP-treated mice that received the vehicle.

Bach1 is a known transcriptional repressor of the Nrf2 pathway.

Bach1 ablation is cytoprotective, as it suppresses reactive oxygen species (ROS) generation, mitigates excessive inflammation, improves mitochondrial function, and inhibits apoptosis.

References

Manuj Ahuja, et al. *Proc Natl Acad Sci U S A*. 2021 Nov 9;118(45):e2111643118.

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

E-mail: tech@probechem.com