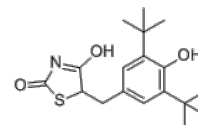


**Product Name** : mitoNEET Ligand-1  
**Cat. No.** : PC-38243  
**CAS No.** : 188532-26-5  
**Molecular Formula** : C<sub>18</sub>H<sub>25</sub>NO<sub>3</sub>S  
**Molecular Weight** : 335.462  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



### Biological Activity

mitoNEET Ligand-1 (NL-1) is a small molecule ligand of **mitoNEET**, a protein that regulate the oxidative capacity of the mitochondria.

mitoNEET is a viable target for the design and synthesis of novel therapeutic agents aimed at altering mitochondrial function.

NL-1 uncoupled isolated mitochondrial complex I respiration with an IC<sub>50</sub> of 2.4 μM and inhibited state III respiration up to 45%, protected the human neuronal cell line SH-SY5Y against rotenone induced cell death.

NL-1 reduced expression of mRNA encoding pro-inflammatory cytokines IL-1β, IL-6, and TNFα, and of mRNA encoding inflammatory mediators iNOS and COX2 in RAW264.7 cells.

NL-1 also reduced expression of mRNA encoding iNOS and COX2 in the spleen and liver of mice with LPS-induced sepsis in injected mice, attenuated LPS-induced oxidative stress and mitochondrial dysfunction.

### References

Logan SJ, et al. *Basic Res Cardiol*. 2015 Mar;110(2):19.

Lee S, et al. *Cell Death Dis*. 2022 Feb 8;13(2):127.

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

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