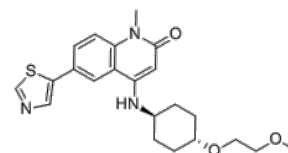


**Product Name** : CD38 inhibitor 78c  
**Cat. No.** : PC-63471  
**CAS No.** : 1700637-55-3  
**Molecular Formula** : C<sub>22</sub>H<sub>27</sub>N<sub>3</sub>O<sub>3</sub>S  
**Molecular Weight** : 413.536  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



### Biological Activity

CD38 inhibitor 78c (CD38 inhibitor 1, Compound 78c) is a potent, specific, reversible **CD38** inhibitor with K<sub>i</sub> of 14.5 nM for recombinant human CD38.

CD38 inhibitor 78c is 10-fold less potent against the cyclase activity than the hydrolase activity of rhCD38 (K<sub>i</sub>=100 and 9.7 nM, respectively).

CD38 inhibitor 78c shows no effect in the CD157 catalytic activities.

CD38 inhibitor 78c reverses age-related NAD<sup>+</sup> decline and improves several physiological and metabolic parameters of aging, including glucose tolerance, muscle function, exercise capacity, and cardiac function in mouse models of natural and accelerated aging.

CD38 inhibitor 78c increases NAD<sup>+</sup> levels, resulting in activation of pro-longevity and health span-related factors, including sirtuins, AMPK, and PARP, ameliorates age-related metabolic dysfunction in vivo.

### References

Tarragó MG, et al. *Cell Metab.* 2018 May 1;27(5):1081-1095.e10.

Becherer JD, et al. *J Med Chem.* 2015 Sep 10;58(17):7021-56.

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

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