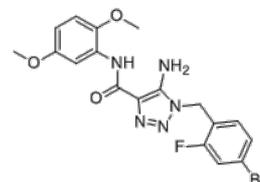


Product Name : GNE551
Cat. No. : PC-38809
CAS No. : 866347-75-3
Molecular Formula : C₁₈H₁₇BrFN₅O₃
Molecular Weight : 450.268
Target : TRP Channel
Solubility : 10 mM in DMSO



Biological Activity

GNE551 is a potent, selective, non-covalent agonist of **TRPA1 ion channel** with EC₅₀ of 254 nM in Ca²⁺ influx assays. GNE551 (1 μM) evoked outward currents at +80 mV and inward currents at -80 mV in whole-cell recordings assays, and evoked robust currents in TRPA1-expressing cells at 80 mV with EC₅₀ of 141 nM, which could be blocked by 1 μM A-967079. GNE551 (20 μM) did not activate or block human TRPV1, TRPM8, or TRPC6, did not inhibit human potassium channel hERG1 and sodium channels (hNav1.2, hNav1.5, or hNav1.7) at 10 μM. GNE551 binds to a transmembrane pocket conserved in several other TRP channels. Compared to the canonical covalent agonist AITC, GNE551 exhibits remarkable differences in channel modulation, pain response, and sensitivity to inhibitor treatment.

References

Liu C,, et al. *Neuron*. 2021 Jan 20;109(2):273-284.e4.

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

E-mail: tech@probechem.com