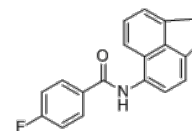


**Product Name** : KCNQ2 activator Ebio1  
**Cat. No.** : PC-21613  
**CAS No.** : 339287-36-4  
**Molecular Formula** : C<sub>19</sub>H<sub>14</sub>FNO  
**Molecular Weight** : 291.33  
**Target** : Potassium Channel  
**Solubility** : 10 mM in DMSO



CAS: 339287-36-4

## Biological Activity

KCNQ2 activator Ebio1 is a potent and subtype-selective activator for the voltage-gated potassium channel **KCNQ2** (Kv7.2) with EC<sub>50</sub> of 247.3 nM, directly opens the KCNQ2 channel.

Ebio1 (10 μM) dramatically caused up to 34.32 ± 2.00 mV left shift of the half-maximal activation voltage (V<sub>1/2</sub>), from -16.65 to -50.97 mV.

Ebio1 showed moderate activity for the KCNQ2/3, KCNQ4 and KCNQ5 channels, and negligible activation effects on Kv, NaV, CaV and K2P channel members, including hERG, BK, NaV1.1, CaV2.1 and TREK1.

Compared to the WT KCNQ2, the mutations W236A, L299A, I300A, S303A and F305A substantially decreased the potency of Ebio1.

Ebio1 activates KCNQ2 via a twist-to-open mechanism.

## References

Shaoying Zhang, et al. *Nat Chem Biol.* 2024 Jan 2. doi: 10.1038/s41589-023-01515-y.

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

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