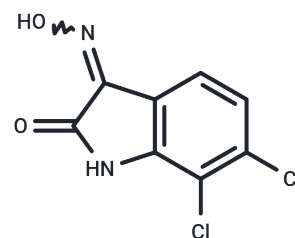


NS309

## Chemical Properties

CAS No. : 18711-16-5  
 Formula: C<sub>8</sub>H<sub>4</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>  
 Molecular Weight: 231.04  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
*Actual storage temperature shall be subject to the COA.*



## Biological Description

Description	NS309 is a nonselective activator of small- and intermediate-conductance Ca <sup>2+</sup> -activated K <sup>+</sup> (SK/KCa <sub>2</sub> and IK/KCa <sub>3.1</sub> ) channels (EC <sub>50</sub> s range from 0.12-1.2 μM for SK channels and 10-90 nM for IK channels). It can also activate voltage-gated Kv11.1 channels (hERG; IC <sub>50</sub> = 1 μM), but does not, however, affect large conductance (BK/KCa <sub>1.1</sub> ) channels. NS309 can modulate neuronal firing patterns by enhancing SK-mediated hyperpolarizing effects. It is 730-fold (SK channels) and 7,400-fold (IK channels) more potent than 1-EBIO and often used in conjunction with CyPPA to distinguish between SK1 and SK3 subtypes.
Targets(IC <sub>50</sub> )	EGFR,Potassium Channel

## Solubility Information

Solubility	DMSO: 45 mg/mL (194.77 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3283 mL	21.6413 mL	43.2825 mL
5 mM	0.8657 mL	4.3283 mL	8.6565 mL
10 mM	0.4328 mL	2.1641 mL	4.3283 mL
50 mM	0.0866 mL	0.4328 mL	0.8657 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Stankevicius, Edgaras; Dalsgaard, Thomas; Kroigaard, Christel et al. Opening of small and intermediate calcium-activated potassium channels induces relaxation mainly mediated by nitric-oxide release in large arteries and endothelium-derived hyperpolarizin

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Dalsgaard, T.; Kroigaard, C.; Misfeldt, M. Openers of small conductance calcium-activated potassium channels selectively enhance NO-mediated bradykinin vasodilatation in porcine retinal arterioles. *British Journal of Pharmacology* (2010), 160(6), 1496-1508

Broendum, E.; Kold-Petersen, H.; Simonsen, U.; Aalkjaer, C. NS309 restores EDHF-type relaxation in mesenteric small arteries from type 2 diabetic ZDF rats. *British Journal of Pharmacology* (2010), 159(1), 154-165.

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