## Data Sheet (Cat.No.T12255)



#### NS19504

## **Chemical Properties**

CAS No.: 327062-46-4
Formula: C10H9BrN2S

Molecular Weight: 269.16
Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).

# Biological Description

Description	NS19504 is a activator of Ca2+-activated K+ channel with EC50 of 11.0 $\mu$ M.		
Targets(IC <sub>50</sub> )	Others: None		
In vitro	NS19504, which activated the BK channel with an EC50 value of 11.0 1.4 M. Hit validation was performed using high-throughput electrophysiology (QPatch), and further characterization was achieved in manual whole-cell and inside-out patch-clamp studies in human embryonic kidney 293 cells expressing hBK channels: NS19504 caused distinct activation from a concentration of 0.3 and 10 M NS19504 left-shifted the voltage activation curve by 60 mV. Furthermore, whole-cell recording showed that NS19504 activated BK channels in native smooth muscle cells from guinea pig urinary bladder. In guinea pig urinary bladder strips, NS19504 (1 M) reduced spontaneous phasic contractions, an effect that was significantly inhibited by the specific BK channel blocker iberiotoxin. In contrast, NS19504 (1 M) only modestly inhibited nerve-evoked contractions and had no effect on contractions induced by a high K(+) concentration consistent with a K(+) channel-mediated action.		

# Solubility Information

Solubility	DMSO: 250 mg/mL (928.82 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)	
	(* Ting/initreters to the product signify soluble of insoluble)	

### **Preparing Stock Solutions**

	1mg	5mg	10mg
1 mM	3.715 mL	18.576 mL	37.153 mL
5 mM	0.743 mL	3.715 mL	7.431 mL
10 mM	0.372 mL	1.858 mL	3.715 mL
50 mM	0.074 mL	0.372 mL	0.743 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

1. Nausch B, et al. NS19504: a novel BK channel activator with relaxing effect on bladder smooth muscle spontaneous phasic contractions. J Pharmacol Exp Ther. 2014 Sep;350(3):520-30.

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