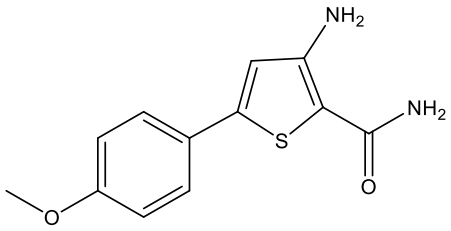
Catalog # 10-3503
AA43279
CAS# 354812-16-1
3-Amino-5-(4-methoxyphenyl)thiophene-2-carboxamide
Lot # X108441



Selective $Na_v1.1$activator. In HEK-293 cells expressing human $Na_v1.1$ channels AA43279 increased the $Na_v1.1$-mediated current in a concentration dependent manner (EC_{50}=9.5 μM). In rat hippocampal brain slices it increased the firing activity parvalbumin-expressing, fast-spiking GABAergic interneurons and increased the spontaneous inhibitory post-synaptic currents recorded from pyramidal neurons. It displayed anticonvulsant activity *in vivo*. Important tool compound for exploring the physiology of $Na_v1.1$ channels.[1]

1) Frederiksen *et al*. (2017), *A small molecule activator of Na_v 1.1 channels increases fast-spiking interneuron excitability and GABAergic transmission in vitro and has anti-convulsive effects in vivo.*; Eur. J. Neuroscience, **46** 1887

PHYSICAL DATA

Molecular Weight:	248.30
Molecular Formula:	$C_{12}H_{12}N_2O_2S$
Purity:	97% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml)
Physical Description:	Tan solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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