

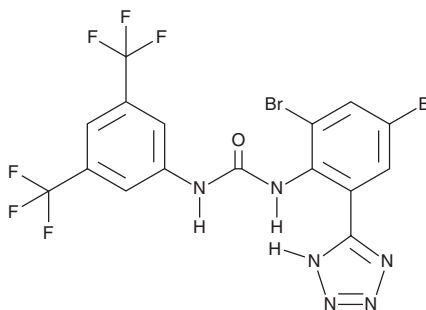
PRODUCT INFORMATION



NS 5806

Item No. 33226

CAS Registry No.: 426834-69-7
Formal Name: N-[3,5-bis(trifluoromethyl)phenyl]-
N'-[2,4-dibromo-6-(2H-tetrazol-5-yl)
phenyl]-urea
MF: C₁₆H₈Br₂F₆N₆O
FW: 574.1
Purity: ≥98%
UV/Vis.: λ_{max}: 245 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NS 5806 is supplied as a crystalline solid. A stock solution may be made by dissolving the NS 5806 in the solvent of choice, which should be purged with an inert gas. NS 5806 is soluble in organic solvents such as ethanol and DMSO. The solubility of NS 5806 in these solvents is approximately 25 and 50 mg/ml, respectively.

Description

NS 5806 is an activator of the calcium-independent transient outward potassium current (I_{to}).¹ It increases K_v4.3-mediated I_{to} current amplitudes (EC_{50} = 5.3 μM), as well as slows I_{to} current decay in a manner dependent on potassium channel interaction protein 2 (KChIP2), in CHO-K1 cells expressing human K_v4.3. NS 5806 increases I_{to} currents in isolated rabbit ventricular myocytes (EC_{50} = 1.6 μM).² It reverses rapid pacing-induced decreases in I_{to} current recovery and restores the spike-and-dome morphology of the epicardial action potential in ventricular wedge preparations isolated from a dog heart in a model of heart failure.³

References

1. Lundby, A., Jespersen, T., Schmitt, N., *et al.* Effect of the I_{to} activator NS5806 on cloned K_v4 channels depends on the accessory protein KChIP2. *Br. J. Pharmacol.* **160**(8), 2028-2044 (2010).
2. Cheng, H., Cannell, M.B., and Hancox, J.C. Differential responses of rabbit ventricular and atrial transient outward current I_{to} to the I_{to} modulator NS5806. *Physiol. Rep.* **5**(5), e13172 (2017).
3. Cordeiro, J.M., Calloe, K., Moise, N.S., *et al.* Physiological consequences of transient outward K⁺ current activation during heart failure in the canine left ventricle. *J. Mol. Cell. Cardiol.* **52**(6), 1291-1298 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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