

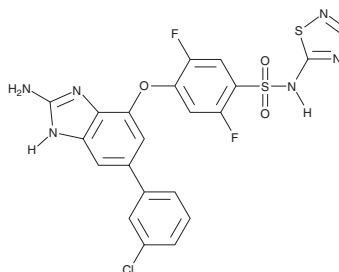
PRODUCT INFORMATION



GX-674

Item No. 39677

CAS Registry No.: 1432913-36-4
Formal Name: 4-[2-(2-amino-1H-benzimidazol-6-yl)-4-chlorophenoxy]-2,5-difluoro-N-1,2,4-thiadiazol-5-yl-benzenesulfonamide
MF: C₂₁H₁₃ClF₂N₆O₃S₂
FW: 534.9
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

GX-674 is supplied as a solid. A stock solution may be made by dissolving the GX-674 in the solvent of choice, which should be purged with an inert gas. GX-674 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of GX-674 in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of GX-674 can be prepared by directly dissolving the solid in aqueous buffers. GX-674 is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

GX-674 is a state-dependent inhibitor of voltage-gated sodium channel 1.7 (Na_v1.7).¹ It selectively inhibits Na_v1.7 in HEK293 cells in a patch-clamp assay at -40 mV over -120 mV, voltages that correspond to steady-state inactivation and the resting closed state of the channel (IC₅₀s = 0.1 and 240 nM, respectively). GX-674 is also selective for Na_v1.7 over Na_v1.1, Na_v1.3-1.5, and Na_v1.8 but does inhibit Na_v1.2 and, to a lesser extent, Na_v1.6.

Reference

1. Ahuja, S., Mukund, S., Deng, L., *et al.* Structural basis of Nav1.7 inhibition by an isoform-selective small-molecule antagonist. *Science* **350**(6267), aac5464 (2015).

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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