

# PRODUCT INFORMATION

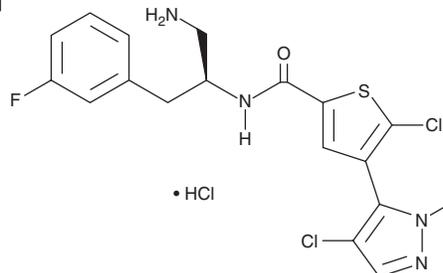


## Afuresertib (hydrochloride)

Item No. 17988

**CAS Registry No.:** 1047645-82-8  
**Formal Name:** N-[(1S)-2-amino-1-[(3-fluorophenyl)methyl]ethyl]-5-chloro-4-(4-chloro-1-methyl-1H-pyrazol-5-yl)-2-thiophenecarboxamide, monohydrochloride

**Synonym:** GSK2110183B  
**MF:** C<sub>18</sub>H<sub>17</sub>Cl<sub>2</sub>FN<sub>4</sub>OS • HCl  
**FW:** 463.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 230, 262 nm  
**Supplied as:** A crystalline 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

Afuresertib (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the afuresertib (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Afuresertib (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of afuresertib (hydrochloride) in ethanol and DMF is approximately 50 mg/ml and approximately 30 mg/ml in DMSO.

Afuresertib (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, afuresertib (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Afuresertib (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Afuresertib is a pan-Akt inhibitor (IC<sub>50</sub>s = 0.08, 2, and 2.6 nM for Akt1, -2, and -3, respectively).<sup>1</sup> It is selective for Akt over a panel of 13 kinases (IC<sub>50</sub>s = >100 nM) but does inhibit PKA, PKG1α, and PKG1β (IC<sub>50</sub>s = 1.3, 0.9, and 4 nM, respectively). Afuresertib (10, 30, and 100 mg/kg) inhibits tumor growth in an SKOV3 mouse xenograft model.

### Reference

1. Dumble, M., Crouthamel, M.C., Zhang, S.Y., *et al.* Discovery of novel AKT inhibitors with enhanced anti-tumor effects in combination with the MEK inhibitor. *PLoS One* **9**(6), e100880 (2014).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
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