



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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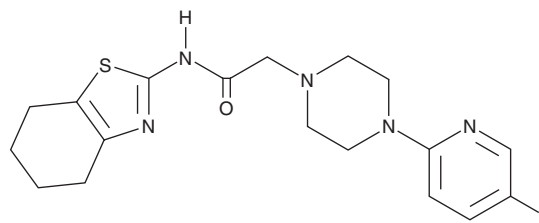
# PRODUCT INFORMATION



## Arylpiperazine 5k

Item No. 38135

**CAS Registry No.:** 1431945-95-7  
**Formal Name:** 4-(5-fluoro-2-pyridinyl)-N-(4,5,6,7-tetrahydro-2-benzothiazolyl)-1-piperazineacetamide  
**Synonym:** DS22420314  
**MF:** C<sub>18</sub>H<sub>22</sub>FN<sub>5</sub>OS  
**FW:** 375.5  
**Purity:** ≥98%  
**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

Arylpiperazine 5k is supplied as a solid. A stock solution may be made by dissolving the arylpiperazine 5k in the solvent of choice, which should be purged with an inert gas. Arylpiperazine 5k is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of arylpiperazine 5k in these solvents is approximately 5 mg/ml. It is slightly soluble in ethanol.

### Description

Arylpiperazine 5k is an inhibitor of fatty acid transport protein 1 (FATP1; IC<sub>50</sub> = 4.6 nM for the human protein).<sup>1</sup> It reduces the accumulation of neutral and polar lipids in MDA-MB-231 breast cancer cells induced by linoleic acid (Item Nos. 90150 | 90150.1 | 21909) when used at a concentration of 12.5 μM.<sup>2</sup> Arylpiperazine 5k (12.5 μM) decreases ATP (Item No. 14498) and BODIPY-palmitate (Item No. 26749) levels in BJAB human lymphoma cells with a deletion of CD37, which is also a negative regulator of fatty acid uptake, but not in wild-type BJAB cells.<sup>3</sup> It induces cell death in MDA-MB-231, MCF-7, HCC1806, and BT474 human breast cancer cells when used at a concentration of 12.5 μM.

### References

1. Matsufuji, T., Ikeda, M., Naito, A., *et al.* Arylpiperazines as fatty acid transport protein 1 (FATP1) inhibitors with improved potency and pharmacokinetic properties. *Bioorg. Med. Chem. Lett.* **23(9)**, 2560-2565 (2013).
2. Mendes, C., Lopes-Coelho, F., Ramos, C., *et al.* Unraveling FATP1, regulated by ER-β, as a targeted breast cancer innovative therapy. *Sci. Rep.* **9(1)**, 14107 (2019).
3. Peeters, R., Cuenca-Escalona, J., Zaal, E.A., *et al.* Fatty acid metabolism in aggressive B-cell lymphoma is inhibited by tetraspanin CD37. *Nat. Commun.* **13(1)**, 5371 (2022).

#### 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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