# Data Sheet

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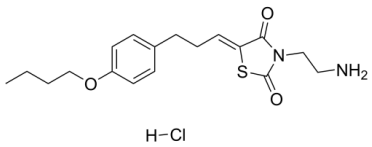
| **Product Name:** | K145 (hydrochloride) |
| **Cat. No.:** | CS-1918 |
| **CAS No.:** | 1449240-68-9 |
| **Molecular Formula:** | $C_{18}H_{25}ClN_2O_3S$ |
| **Molecular Weight:** | 384.92 |
| **Target:** | Apoptosis; SphK |
| **Pathway:** | Apoptosis; Immunology/Inflammation |
| **Solubility:** | H2O : 126.7 mg/mL (329.16 mM; Need ultrasonic and warming); DMSO : 50 mg/mL (129.90 mM; Need ultrasonic) |




## BIOLOGICAL ACTIVITY:

K145 hydrochloride is a selective, substrate-competitive and orally active **SphK2** inhibitor with an **$IC_{50}$** of 4.3 μM and a **$K_i$** of 6.4 μM. K145 hydrochloride is inactive against SphK1 and other protein kinases. K145 hydrochloride induces cell **apoptosis** and has potently antitumor activity[1]. IC50 & Target: IC50: 4.3 μM (SphK2)[1]

Ki: 6.4 μM (SphK2)[1] ***In Vitro:*** K145 (0-10 μM; 24-72 hours; U937 cells) treatment significantly inhibits the growth of U937 cells in a concentration-dependent manner[1].

K145 (10 μM; 24 hours; U937 cells) treatment significantly induces apoptosis in U937 cells[1].

K145 (4-8 μM; 3 hours; U937 cells) treatment decreases the phosphorylation of ERK and Akt[1].

Treatment with K145 (10 μM) causes a decrease of total cellular S1P without significant effects on ceramide levels[1]. ***In Vivo:*** K145 (50 mg/kg; oral gavage; daily; for 15 days; BALB/c-nu mice) treatment significantly inhibits the growth of U937 tumors in nude mice[1].

## References:

[1]. Liu K, et al. Biological characterization of 3-(2-amino-ethyl)-5-[3-(4-butoxyl-phenyl)-propylidene]-thiazolidine-2,4-dione (K145) as a selective sphingosine kinase-2 inhibitor and anticancer agent. PLoS One. 2013;8(2):e56471.

## CAIndexNames:

2,4-Thiazolidinedione, 3-(2-aminoethyl)-5-[3-(4-butoxyphenyl)propylidene]-, hydrochloride (1:1)

## SMILES:

O=C(N(CCN)C/1=O)SC1=C/CCC2=CC=C(OCCCC)C=C2.[H]Cl



Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA