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## Product Data Sheet

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Product Name: MK8353  
Cat. No.: GC18156

### Chemical Properties

Cas. No. 1184173-73-6

SMILES O=C([C@@]1(SC)CN(CC(N2CC=C(C3=CC=C(C4=NN(C)C=N4)C=C3)CC2)=O)CC1)NC5=CC6=C(NN=C6C7=CC=C(OC(C)C)N=C7)C=

Formula C<sub>37</sub>H<sub>41</sub>N<sub>9</sub>O<sub>3</sub>S

M.Wt

691.84

Solubility Soluble in DMSO

Storage

Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.  
Condition

Structure

### Background

MK-8353 is a potent, selective and orally available ERK1/2 inhibitor. It is a clinical candidate suitable for twice daily oral dosing as a potential new cancer therapeutic.

MK-8353 demonstrates kinase selectivity over a 227-human kinase panel; no additional kinase in the panel was inhibited by more than 35% at the 0.1 μM concentration, and only 3 kinases (CLK2, FLT4, and Aurora B) were inhibited >50% at the 1.0 μM concentration. MK-8353 shows potent antitumor activity against various cancer cell lines, such as Malme-3M cells (Melanoma), Colo-205 cells (Colon), NCI-H292 cells (Lung), A-549 cells (NSCLC), 8505C cells (Thyroid), SW-626 cells (Ovarian), with EC<sub>50</sub>s of 21 nM, 19 nM, 130 nM, 230 nM, 210 nM, 108 nM.

MK-8353 administered by oral gavage at 60 mg/kg twice daily results in at least 50% tumor growth inhibition or regression in 83% of the animal models (including LOX, Colo-205, MIA PaCa-2, and Calu-6 cells).

### References

1. Moschos SJ, et al. Development of MK-8353, an orally administered ERK1/2 inhibitor, in patients with advanced solid tumors. *JCI Insight*. 2018 Feb 22;3(4). pii: 92352.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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