Product Specification Sheet

Product Name: SF1670

Catalog Number: C7316-2 (powder)

C7316-2s (10mM in DMSO)

Package Size: 2 mg

Technical information:

Chemical Formula: C₁₉H₁₇NO₃

CAS #: 345630-40-2

Molecular Weight: 307.34

Purity: >98%

Formulation: Purple solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: N-(9,10-dioxo-9,10-dihydrophenanthren-2-yl)pivalamide

Storage: Store solid powder at 4°C desiccated;

Store DMSO solution at -20°C.

Handling: • For C7316-2 (powder), add 651 uL of DMSO to make 10 mM solution.

• For C7316-2s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full sample recovery.

Biological Activity:

SF1670 is a selective PTEN inhibitor (IC $_{50}$ =2 μ M). As PTEN-mTOR pathway is critical for controlling the regenerative capacity of corticospinal neurons, PTEN deletion or its inhibitor enhances the regenerative ability of adult corticospinal neurons. Pretreatment with SF1670 augments the efficacy of granulocyte transfusion in a clinically relevant mouse model.

Reference:

1. Garlich, Joseph et al. Preparation of (heteroaryl) amides and hydrazides as inhibitors of phosphatase located on chromosome 10 (PTEN). PCT Int. Appl. (2005), WO 2005097119.

2. Kai Liu, et al. PTEN deletion enhances the regenerative ability of adult corticospinal neurons. Nature Neuroscience (2010), 13(9), 1075-1081.

3. Yitang Li, et al. Pre-treatment with PTEN inhibitor SF1670 augments the efficacy of granulocyte transfusion in a clinically relevant mouse model. Blood. 2011;117(24):6702-13.

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