Product Specification Sheet

Product Name: PS48

Catalog Number: C7748-5 (powder)

C7748-5s (10 mM in DMSO)

Package Size: 5 mg

Technical information:

Chemical Formula: C₁₇H₁₅ClO₂

CAS #: 1180678-32-7

Molecular Weight: 286.75

Purity: >98%

Formulation: white solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 5-(4-Chloro-phenyl)-3-phenyl-pent-2-enoic acid

Storage: Store solid powder at 4°C desiccated;

Store DMSO solution at -20°C.

Handling: • For C7748-5 (powder), add 1.74 mL of DMSO to make 10 mM solution.

• For C7748-5s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full recovery of sample.

Biological Activity: PS48 is an allosteric small molecule activator of phosphoinositide-

dependent protein kinase 1 (PDK1). It binds to the HM/PIF binding pocket

instead of the ATP-binding site.

PS48 has been used to enhance reprogramming of neonatal human

epidermal keratinocytes (NHEKs).

Reference: 1. Hindie et al. Structure and allosteric effects of low-molecular- weight activators on the protein kinase PDK1. Nature Chem Biol. (2009) 5: 758-

764.

2. Bobkova et al. Discovery of PDK1 Kinase Inhibitors with a novel mechanism of action by ultra-high throughput screening. J Biol Chem.

(2010) 285: 18838-18846.

3. Zhu et al. Reprogramming of Human Primary Somatic Cells by Oct4 and

Chemical Compounds. Cell Stem Cell. (2010) 7 (6)651-655.

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