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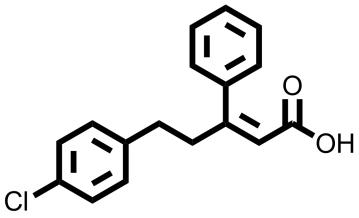
PDK1 Activator PS48

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



Molecular Weight:	286.75
Formula:	$C_{17}H_{15}ClO_2$
Purity:	≥98%
CAS#:	1180678-32-7
Solubility:	DMSO up to 100 mM
Storage	Powder: 4°C 1 year DMSO: 4°C 3 month -20°C 1 year

Biological Activity:

PS48 is a novel PDK1 (phosphoinositide-dependent protein kinase 1) activator (Kd = 10.3 μM), which binds to the HM/PIF binding pocket rather than the ATP-binding site. PS48 has been used to enhance iPSC reprogramming from human epidermal keratinocytes and endothelial cells.

How to Use:

In vitro: PS48 was used at 5 μM concentration in cell culture.

In vivo: n/a

Reference:

1. Hindie V, et al. Structure and allosteric effects of low-molecular- weight activators on the protein kinase PDK1. (2009) Nature Chem Biol. 5: 758-764.
2. Stroba A, et al. 3,5-Diphenylpent-2-enoic acids as allosteric activators of the protein kinase PDK1: structure-activity relationships and thermodynamic characterization of binding as paradigms for PIF-binding pocket-targeting compounds. (2009) J Med Chem. 52(15):4683-93.
3. Zhu S, et al. Reprogramming of Human Primary Somatic Cells by Oct4 and Chemical Compounds. (2010) Cell Stem Cell. 7 (6)651-655.