

# CI-1040

**Catalog No: tcsc0058**



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 25mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg

**Size:** 500mg



## Specifications

**CAS No:**

212631-79-3

**Formula:**

$C_{17}H_{14}ClF_2IN_2O_2$

**Pathway:**

MAPK/ERK Pathway

**Target:**

MEK

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 150$  mg/mL (313.37 mM)

#### Alternative Names:

PD 184352

#### Observed Molecular Weight:

478.66

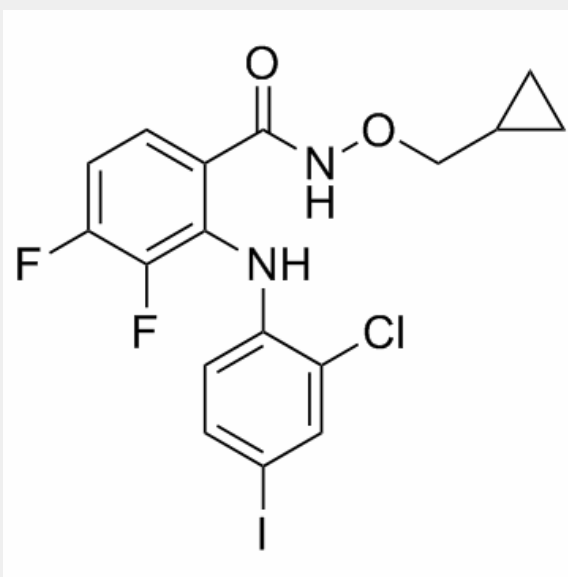
### Product Description

CI-1040 (PD184352) is an orally active, highly specific, small-molecule inhibitor of **MEK** with an **IC<sub>50</sub>** of 17 nM for MEK1.

IC50 & Target: IC50: 17 nM (MEK)<sup>[1]</sup>

**In Vitro:** CI-1040 directly inhibits MEK1 with an IC<sub>50</sub> of 17 nM. It has also been shown to have little activity against a panel of related kinases with IC<sub>50</sub> values more than 2.5 orders of magnitude higher. Treatment of whole cells with CI-1040 completely inhibits the mitogen-stimulated phosphorylation of ERK. CI-1040 at a concentration of 1 μM is found to inhibit phosphorylation of ERK1 and ERK2 by 99% and 92%, respectively in MDA-MB-231 breast cancer cells<sup>[1]</sup>. CI-1040 induces apoptosis and inhibits proliferation in U-937 cells in a dose and time-dependent manner. CI-1040 induces a significant increase in PUMA mRNA and protein levels<sup>[2]</sup>.

**In Vivo:** The systemic administration of the MEK inhibitor CI-1040 reduces adenoma formation to a third and significantly restores lung structure. The proliferation rate of lung cells of mice treated with CL-1040 is decreased without any obvious effects on differentiation of pneumocytes<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!