

PD184352

✓ 5 mg

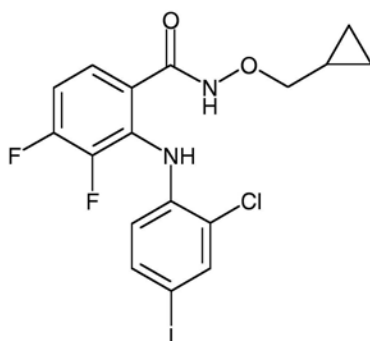
Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
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info@cellsignal.com
Web ■ www.cellsignal.com

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For Research Use Only. Not For Use In Diagnostic Procedures.

Background: PD184352 (CI-1040) is a highly potent and selective noncompetitive MEK inhibitor with an IC₅₀ of 17 nM for MEK1 (1). Treatment of cells with PD184352 leads to suppression of MAPK activation (1-4) and potently inhibits the proliferation of cells harboring the B-Raf mutation V600E (2,3). Researchers have shown that PD184352 effectively inhibits MEK5, although not as potently as MEK1 (4).

Molecular Formula: C₁₇H₁₄ClF₂IN₂O₂₂



Molecular Weight: 478.66 g/mol

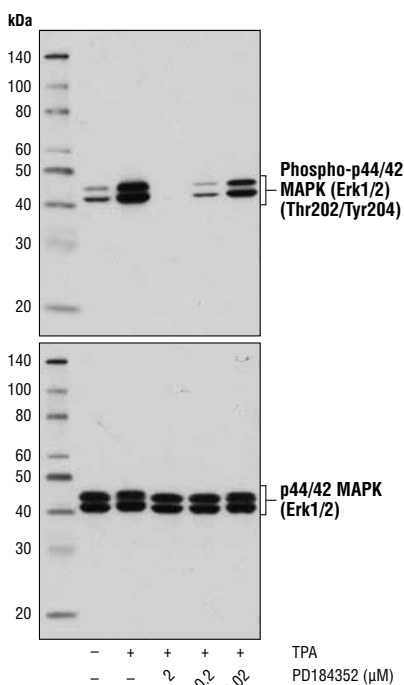
Solubility: Soluble in DMSO at 25 mg/ml and ethanol at 8 mg/ml with warming; poorly soluble in water with maximum solubility in water at ~5-10 µM.

Purity: >99%

Directions for Use: PD184352 is supplied as a lyophilized powder. For a 10 mM stock, reconstitute the 5 mg in 1044.6 µl DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used as a pretreatment at 0.1-10 µM for 0.5-1 hr prior to treating with a stimulator or is used alone with varying treatment times lasting up to 24 hr.

Background References:

- (1) Sebolt-Leopold, J.S. et al. (1999) *Nat Med* 5, 810-6.
- (2) Liu, D. et al. (2007) *J Clin Endocrinol Metab* 92, 4686-95.
- (3) Solit, D.B. et al. (2006) *Nature* 439, 358-62.
- (4) Mody, N. et al. (2001) *FEBS Lett* 502, 21-4.



Western blot analysis of extracts from HeLa cells, serum-starved overnight and untreated or treated with TPA #4174 (200 nM, 20 min) either with or without PD184352 pretreatment (1 hr) at the indicated concentrations, using Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb #4370 (upper) or p44/42 MAPK (Erk1/2) (137F5) Rabbit mAb #4695 (lower).

Storage: Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.