

PD184352



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| Background | PD184352 (CI-1040) is a highly potent and selective noncompetitive MEK inhibitor with an IC ₅₀ of 17 nM for MEK1 (1). Treatment of cells with PD184352 leads to suppression of MAPK activation (1-4) and potentially 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 | C ₁₇ H ₁₄ ClF ₂ IN ₂ O ₂₂ |
| Molecular Weight | 478.66 g/mol |
| Purity | >99% |
| CAS | 212631-79-3 |
| Solubility | Soluble in DMSO at 50mg/ml and EtOH at 8.3mg/ml. |
| 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. |
| 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. 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. |
| Background References | <ol style="list-style-type: none"> 1. Sebolt-Leopold, J.S. et al. (1999) <i>Nat Med</i> 5, 810-6. 2. Liu, D. et al. (2007) <i>J Clin Endocrinol Metab</i> 92, 4686-95. 3. Solit, D.B. et al. (2006) <i>Nature</i> 439, 358-62. 4. Mody, N. et al. (2001) <i>FEBS Lett</i> 502, 21-4. |

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