AZD6244 is a potent, highly selective inhibitor of the mitogen-activated protein kinases MEK1 (IC₅₀ = 14 nM) and MEK2 (Kd = 530 nM; Yeh et al.; Davis et al.). It is a tight-binding noncompetitive inhibitor that does not bind in the ATP binding pocket of MEK (Huynh et al.). It also shows micromolar binding to epidermal growth factor receptor (EGFR; Davis et al.). It is a crystalline solid.

### Physical Appearance
A crystalline solid

### Storage
Product stable at -20°C as supplied. Protect from prolonged exposure to light. Stabilized as supplied for 12 months from date of receipt.

### Solubility
- DMSO ≤ 40 mM
  - For example, to prepare a 10 mM stock solution in DMSO, resuspend 10 mg in 2.18 mL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.
Published Applications

CANCER RESEARCH
- Inhibits growth of several tumor cell lines but not normal fibroblast lines, and inhibits tumor growth in a colorectal xenograft tumor model (Yeh et al.).
- Inhibits proliferation and induces differentiation and apoptosis in multiple tumor cell lines and tumor xenograft models, especially those containing BRAF or RAS mutations (Davies et al.).
- Inhibits proliferation of breast cancer and non-small cell lung cancer cell lines, especially those containing RAF and RAS mutations, respectively (Garon et al.).

References


Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, visit www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

This product is hazardous. Please refer to the Safety Data Sheet (SDS).