**Product Specification Sheet**

**Product Name:** AZD6244 (Selumetinib)

**Catalog Number:** C2624

### Technical information:

- **Chemical Formula:** \( C_{17}H_{15}BrCIFN_4O_3 \)
- **CAS #:** 606143-52-6
- **Molecular Weight:** 457.68
- **Purity:** > 98%
- **Appearance:** White solid
- **Solubility:** Soluble in DMSO up to 100 mM
- **Chemical Name:** 6-(4-bromo-2-chlorophenylamino)-7-fluoro-N-(2-hydroxyethoxy)-3-methyl-3H-benzo[d]imidazole-5-carboxamide
- **Storage:** Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
- **Shelf Life:** In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

### Handling:

- To make 10 mM stock solution, add 0.218mL of DMSO for each mg of AZD6244 (Selumetinib)
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

### Biological Activity:

AZD-6244 (Selumetinib) is an orally-available, aminobenzimidazole-based, allosteric inhibitor of MEK1 kinase with an IC50 of 14 nM. [1] IC50 concentrations of <40 nM were observed in cellular phosphorylation assays measuring ERK1/2 in various cell lines.

In cellular growth assays, AZD-6244 was more potent in cell lines containing activating B-Raf and Ras mutations, with IC50 values ranging from 59 to 473 nM. In HT-29 and Malme-3M cell studies, AZD-6244 was found to induce G1-S cell cycle arrest, inducing apoptosis after a 2-day incubation period. [1] In Colo-205 xenografts, AZD6244 induced increased levels of cleaved caspase-3, indicating apoptosis. [2]

In diffuse large B-cell lymphoma (DLBCL) lines, nanomolar concentration of AZD-6244 effectively downregulated MEK/ERK target substrates, including c-Myc, Mcl-1, and Bcl-2. [3]

### Reference:


To reorder: [http://www.cellagentech.com/AZD6244-Selumetinib/](http://www.cellagentech.com/AZD6244-Selumetinib/)

For Technical Support: [technical@cellagentech.com](mailto:technical@cellagentech.com)

*Chemicals are sold for research use only, not for clinical or diagnostic use.*