**Product Name:** Lonafarnib  

**Revision Date:** 6/30/2016

### Chemical Properties

- **Product Name:** Lonafarnib  
- **Cas No.:** 193275-84-2  
- **M.Wt:** 638.82  
- **Formula:** C27H31Br2ClN4O2  
- **Synonyms:** Sch 66336, Sch66336, Sch-66336  
- **Chemical Name:** 4-[[2-[[4-[(11R)-3,10-dibromo-8-chloro-6,11-dihydro-5H-benzo[1,2]cyclohepta[2,4-b]pyridin-11-yl]piperidin-1-yl]-2-oxoethyl]piperidine-1-yl]-2-oxoethyl]piperidine-1-carboxamide  
- **Canonical SMILES:** C1CN(CCC1CC(=O)N2CCC(CC2)C3C4=C(C=C(C=C4CCC5=CC(=CN=C35)Br)Cl)Br)C(=O)N  
- **Solubility:** >32mg/mL in DMSO  
- **Storage:** Store at -20°C  
- **General tips:** For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.  
- **Shopping Condition:** Evaluation sample solution: ship with blue ice  
  All other available size: ship with RT, or blue ice upon request

### Biological Activity

- **Targets:** Transferase  
- **Pathways:** Metabolism >> Transferase  
- **Description:** Lonafarnib (SCH66336, Sarasar) is an potent, selective, orally, bioavailable tricyclic nonpeptidyl nonsulphydry inhibitor of farnesyltransferase (FTase).[1] It is a small molecular with the formula of C27H31Br2ClN4O2 and molecular weight of 638.82. Farnesylated Ras proteins was found to
regulate signal transduction pathways which drive cell proliferation, growth and survival and be required for its membrane localization.[1, 2] Lonafarnib inhibits the post-translational farnesylation of ras proteins, therefore blocking translocation of RAS to the plasma membrane.[3]

**Reference:**

**Protocol**

**Cell experiment:**

**Cell lines**
UMSCC10B, UMSCC14B, UMSCC17B, UMSCC22B, UMSCC35 and UMSCC38 cells

**Preparation method**
The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.

**Reacting conditions**
0.1 ~ 8 μM; 24 hrs

**Applications**
In human head and neck squamous carcinoma cells (HNSCCs), SCH66336 (0.1 ~ 8 μM) suppressed cell growth and induced apoptosis of in a dose- and time-dependent manner.

**Animal experiment [3]:**

**Animal models**
NOD/SCID mice bearing XEN08 tumors

**Dosage form**
50 mg/kg; p.o.; b.i.d., for 20 days

**Applications**
In NOD/SCID mice bearing XEN08 tumors, SCH66336 (50 mg/kg, p.o., b.i.d.) significantly inhibited tumor growth, with a mean growth inhibition of 63.8 ± 5.0%.

**Other notes**
Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused
by an experimental system error and it is normal.

Reference:


Caution

FOR RESEARCH PURPOSES ONLY.
NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.