

## Afatinib, Free Base

**Catalog #:** 27009

**Lot #:** 230328

**Size:** 25 mg

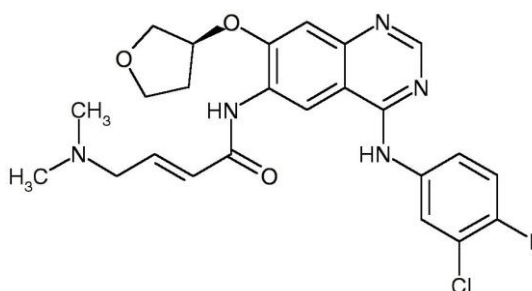
**Structure:**

**CAS Registry #:** 439081-18-2

**Purity:** ≥ 95%

**Chemical Formula:** C<sub>24</sub>H<sub>25</sub>ClFN<sub>5</sub>O<sub>3</sub>

**Molecular Weight:** 485.94

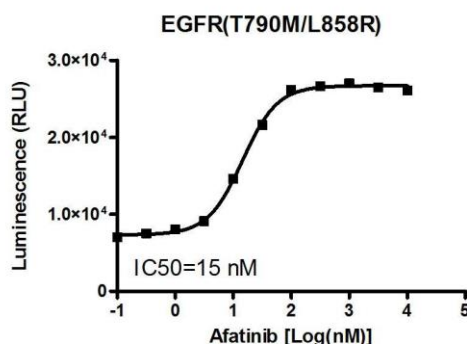


**Description:** Afatinib, also known as BIW-2992, is an irreversible dual inhibitor of epidermal growth factor receptor 1 (EGFR) and 2 (HER2) tyrosine kinases. Afatinib suppresses EGF-induced EGFR phosphorylation and cellular proliferation in various cell lines, including EGFR-overexpressing and HER2-expressing cell lines A431, NIH-3T3-HER2, NCI-N87 and BT-474.

**Appearance:** White crystalline powder.

**Solubility:** Soluble in DMSO at 200 mg/mL; soluble in ethanol at 25 mg/mL; very poorly soluble in water; maximum solubility in plain water is estimated to be about 50-100 µM; buffers, serum, or other additives may increase or decrease the aqueous solubility.

**Biological Activity:** Afatinib inhibited the EGFR kinase (IC<sub>50</sub> = 15 nM) using BPS Bioscience EGFR assay performed using 10 µM ATP and 0.2 mg/ml poly-(Glu-Tyr). Activity was measured by Kinase-Glo Plus reagents (Promega)



**Storage/Stability:** Store at or below -20°C.

**Quality Control:** The purity was determined by HPLC.