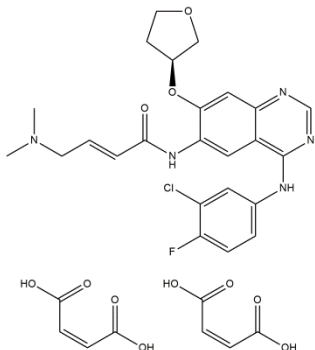


Afatinib dimaleate

ALTERNATE NAMES: Gilotrif; (2E)-N-(4-((3-Chloro-4-fluorophenyl)amino)-7-(((3S)-tetrahydrofuran-3-yl)oxy)quinazolin-6-yl)-4-(dimethylamino)but-2-enamide bis(hydrogen (2Z)-but-2-enedioate); (2E)-N-[4-[(3-Chloro-4-fluorophenyl)amino]-7-[[[(3S)-tetrahydro-3-furanyl]oxy]-6-quinazoliny]]-4-(dimethylamino)-2-butenamide dimaleate; (E)-4-Dimethylamino-But-2-Enoic Acid-(4-(3-Chloro-4-Fluoro-Phenylamino)-7-((S)-Tetrahydrofuran-3-Yloxy)-Quinazolin-6Yl)-Amide Dimaleate; BIBW 2992MA2; Tovok

CATALOG #: B3072-50 50 mg
B3072-250 250 mg

STRUCTURE:



MOLECULAR FORMULA: C₃₂H₃₃ClFN₅O₁₁

MOLECULAR WEIGHT: 718.08

CAS NUMBER: 850140-73-7

APPEARANCE: White to off-white powder

PURITY: ≥95%

SOLUBILITY: ~ 50 mg/ml in water

DESCRIPTION: Afatinib is an irreversible dual inhibitor of epidermal growth factor receptor (EGFR) and human epidermal growth factor receptor 2 (HER2) tyrosine kinase. It shows IC₅₀ values of 0.5 nM and 14 nM for EGFR kinase and HER2 kinase respectively. It inhibits EGF-induced EGFR phosphorylation and cellular proliferation in cell lines such as EGFR-overexpressing and HER2-expressing cell lines A431, NIH-3T3-HER2, NCI-N87 and BT-474. It causes tumour regression in mice carrying EGFR-overexpressing and HER2-expressing A431 xenografts, EGFR-overexpressing and HER2-expressing MDA-MB-453 xenografts and NCI-N87 gastric and SKOV-3 ovarian models.

STORAGE TEMPERATURE: -20°C

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCE: Eskens, F.A.L.M., Mom, C.H., Planting, A.S.T., et al. A phase I dose escalation study of BIBW 2992, an irreversible dual inhibitor of epidermal growth factor receptor 1 (EGFR) and 2 (HER2) tyrosine kinase in a 2-week on, 2-week off schedule in patients with advanced solid tumours. *Br. J. Cancer* 98(1), 80-85 (2008).

RELATED PRODUCTS:

Allitinib (Cat. No. B3002)
 Avitinib (Cat. No. B2995)
 Icotinib (Cat. No. B3003)
 BIBW2992 (Tovok) (Cat. No. 1616)
 DiscoveryPak™ EGFR Tyrosine Kinase Inhibitor Set (Cat. No. K858)

DISCLAIMER: *FOR RESEARCH USE ONLY! Not to be used on humans.*