1.5.1.1 Drugs in use as signal transduction inhibitors:

1.5.1.2 Quinazolinamine (anilinoquinazoline)

Inhibits epidermal growth factor receptor (EGFR) tyrosine kinase, through binding to intracellular tyrosine kinase of EGFR, to directly block signals turned on by triggers outside or inside the cell (Lynch *et al.*, 2004).

Growth factor receptors (GFRs) have been identified as key drivers in the process of cell growth and replication. EGFR is expressed on the cell surface of many normal cells and cancer cells and has an important role in the formation of new blood vessels “angiogenesis" (Paez *et al.,* 2004).

1.5.1.2.1 Tarceva® (erlotinib)

It is a human epidermal growth factor receptor type, [epidermal growth factor (HER1/ EGFR] tyrosine kinase inhibitor. Erlotinib reversibly inhibits the kinase activity of EGFR, preventing autophosphorylation of tyrosine residues associated with the receptor and thereby inhibiting further downstream signaling. Erlotinib is a quinazoline amine derivative (Tang *et al., 2000).*

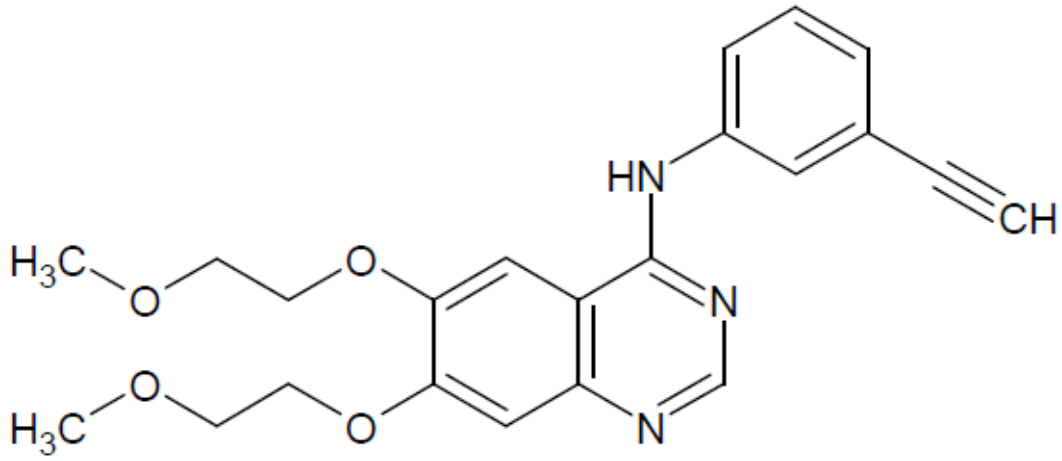

Figure 2: N-(3-ethynylphenyl)-6,7-bis (2-methoxyethoxy)-4-quinazolineamine.