ERRB3/HER3 receptor is another member of subclass I of the receptor tyrosine kinase superfamily. Normally ERBB3 induces the phosphatidylinositol 3-kinase(PI3K)-protein kinase B (AKT) growth pathway. In cancer cells AKT activation is one of the multiple signals essential for the transformed phenotype. Data form solid cancers analysis revealed ERBB3 amplification and overexpression in melanoma, ovarian cancer, head and neck cancer, pancreatic cancer, and cervical cancer (Okana et al., 2013). Numerous studies have stressed the importance of ERBB3 as a potential therapeutic target as it is frequently activated in receptor tyrosine kinase (RTK) driven tumors. In patients with colorectal cancer ERBB3 overexpression is significantly correlated to hepatic metastases. In ERBB2 amplified breast cancer ERBB2-ERBB3 dimers promote tumor formation and maintenance. Antibodies that block either or both receptors (trastuzumab and pertuzumab) exhibit antitumor activities blocking the PI3K pathway in breast cancer (Nahta et al., 2004) resulting in increased overall survival (Verma et al., 2013) in breast cancer patients.