Product Data Sheet

Product Name: erbB-2
Cat. No.: GP10132

Chemical Properties

Cas. No.			
SMILES	O=C(N[C@@H]([C@H](CC)C)C(N[C@@H](CC1=CC=CC=C1)C(NCC(N[C@@H](CO)C(N[C@@H](CC(C)C)C(N[C@H](C)C(N[C@@H](CC2=CC=CC=C2)C(N[C@@H](CC(C)C)C(O)=O)=O)=O)=O)=O)=O)=O)[C@H](CCCCN)N		
Formula	$C_{50}H_{78}N_{10}O_{11}$	M.Wt	995.21
Solubility	≥ 99.5mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	erbB-2		

Background

erbB-2 is a transmembrane, tyrosine kinase (TK) receptor whose overexpression is associated with adverse prognosis in breast cancer1.
The human epidermal growth factor receptor (erbB-2) is a transmembrane receptor that is overexpressed in 15%–25% of breast cancers. erbB-2 overactivity is associated with adverse biological characteristics and poor clinical outcomes1.Overexpression of erbB2 in cell lines leads to transformation in the absence of a ligand2. None of the EGF family of ligands binds to ErbB2 directly. Therefore, in a technical sense, ErbB2 remains an orphan receptor.
A wide variety of human tumors contain an amplified or overexpressed erbB-2 gene, which encodes a growth factor receptor-like protein. When erbB-2 complementary DNA was expressed in NIH/3T3 cells under the control of the SV40 promoter, the gene lacked transforming activity despite expression of detectable levels of the erbB-2 protein. A further five- to tenfold increase in its expression under influence of the long terminal

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

repeat of Moloney murine leukemia virus was associated with activation of erbB-2 as a potent oncogene. The high levels of the erbB-2 product associated with malignant transformation of NIH/3T3 cells were observed in human mammary tumor cells that overexpressed this gene3.

References:

1. V. Roy, E. A. Perez. Beyond Trastuzumab: Small Molecule Tyrosine Kinase Inhibitors in HER-2–Positive Breast Cancer The Oncologist 2009;14:1061–1069
2. Di Fiore PP, Pierce JH, Fleming TP, Hazan R, Ullrich A, King CR, Schlessinger J, Aaronson SA: Overexpression of the human EGF receptor confers an EGF-dependent transformed phenotype to NIH 3T3 cells. Cell 1987, 51:1063-1070.
3. P.P. Di Fiore, J. H. Pierce, M. H. Kraus, O. Segatto, C. R. King, S. A. Aaronson. erbB-2 is a Potent Oncogene When Overexpressed in NIH/3T3 Cells. Science, New Series, 237: 178-182