Product Data Sheet

Product Name:	Epidermal growth factor receptor (994-1002) acetyl/amide
Cat. No.:	GP10005

Chemical Properties

Cas. No.			
SMILES	OC(CC(NC(C)=O)C(NC(CO)C(NC(CC(N)=O)C(NC(CC1=CC=CC=C1)C(NC(CC2=CC=C(O)C=C2)C(NC(CCCNC(N)=N)C(NC(C)C(NC(CC(C		
Formula	$C_{51}H_{76}N_{14}O_{15}S$	M.Wt	
Solubility	≥ 115.7mg/mL in DMSO	Storage	
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		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Epidermal growth factor receptor (994-1002) acetyl/amide		

Background

The epidermal growth factor receptor (EGFR; ErbB-1; HER1 inhumans) is the cell-surface receptor for members of the epidermal growth factor family (EGF-family) of extracellular protein ligands[1]. EGFR (epidermal growth factor receptor) exists on the cell surface and is activated by binding of its specific ligands, including epidermal growth factor and transforming growth factor ‖ (TGF‖). Mutations that lead to EGFR overexpression (known as upregulation) or overactivity have been associated with a number of cancers, including lung cancer, anal cancers and glioblastoma multiforme[2]. In this latter case a more or less specific mutation of EGFR, called EGFRvIII is often observed. Mutations, amplifications or misregulations of EGFR or family members are implicated in about 30% of all epithelial cancers. Mutations involving EGFR could lead to its constant activation, which could result in uncontrolled cell division - a predisposition for cancer. Consequently, mutations of EGFR have been identified in several types of cancer, and it is the target of an expanding class of anticancer therapies[3].

References:
1. Herbst RS (2004). "Review of epidermal growth factor receptor biology". Int. J. Radiat. Oncol. Biol. Phys. 59 (2 Suppl): 21-6.
2. Walker F, Abramowitz L, Benabderrahmane D, Duval X, Descatoire V, HÅnin D, Lehy T, Aparicio T (November 2009). "Growth factor receptor expression in anal squamous lesions: modifications associated with oncogenic human papillomavirus and human immunodeficiency virus". Hum. Pathol. 40 (11): 1517-27.
3. Zhang H, Berezov A, Wang Q, Zhang G, Drebin J, Murali R, Greene MI (August 2007). "ErbB receptors: from oncogenes to targeted cancer therapies". J. Clin. Invest. 117 (8): 2051-8.

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