Product Data Sheet

Product Name:	Glycoprotein B (485-492)
Cat. No.:	GP10090

Chemical Properties

Cas. No.			
SMILES	NC(CO)C(NC(CO)C(NC(C(CC)C)C(NC(CCC(O)=O)C(NC(CC1=CC=CC=C1)C(NC(C)C(NC(CCCNC(N)=N)C(NC(CC(C)C)C(O)=O)=O)=O)=(		
Formula	$C_{41}H_{67}N_{11}O_{13}$	M.Wt	922.04
Solubility	≥ 92.2mg/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 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	Glycoprotein B (485-492)		

Background

Glycoprotein B (485-492), (C41H67N11O13), a peptide with the sequence H2N-Ser-Ser-Ile-Glu-Phe-Ala-Arg-Leu-OH, MW= 922.04. glycoprotein B is a viral glycoprotein that is involved in the viral cell entry of Herpes simplex virus (HSV). Herpesviruses have an envelope and an outer lipid bilayer which contains twelve surface glycoproteins. For infectivity to be attained, the double stranded DNA genome of HSV must enter the host cell through means of fusion of its envelope with the cellular membrane or via endocytosis[1]. The herpesvirus glycoprotein B is the most highly conserved of all surface glycoproteins and acts primarily as a fusion protein. The precise functions of gB and gH/gL are unknown but they are required for viral entry into the cell and constitute the core fusion machinery. The claim that gB is involved in fusion comes from the notable syncytial phenotype caused by certain mutations within the cytoplasmic domain of glycoprotein B[2], as well as its strucutral homology to other viral fusion proteins[3].

References:
1. PereiraL, Ali M, Kousoulas K, Huo B, Banks T (September 1989). "Domain structure of herpes simplex virus 1 glycoprotein B: neutralizing epitopes map in regions of continuous and discontinuous residues". Virology 172 (1): 11–24.
2. Bender FC, Samanta M, Heldwein EE, de Leon MP, Bilman E, Lou H, Whitbeck JC, Eisenberg RJ, Cohen GH (April 2007). "Antigenic and mutational analyses of herpes simplex virus glycoprotein B reveal four functional regions". J. Virol. 81 (8): 3827–41.
3. Heldwein EE, Lou H, Bender FC, Cohen GH, Eisenberg RJ, Harrison SC (July 2006). "Crystalstructure of glycoprotein B from herpes simplex virus 1". Science 313 (5784): 217–20.

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