Product Data Sheet

Product Name: Large T antigen - rhesus polyomavirus 560-568
Cat. No.: GP10037

Chemical Properties

Cas. No.			
SMILES	N[C@H](C(N[C@@H](CCC(O)=O)C(N[C@@H](CC1=CC=CC=C1)C(N[C@@H](CC(C)C)C(N[C@@H](CC(C)C)C(N[C@@H](CCC(O)=O)C(N[C@@H](CCCCN)C(N[C@@H](CCCNC(N)=N)C(N[C@@H]([C@@H](C)CC)C(O)=O)=O)=O)=O)=O)=O)=O)=O)=O)CO		
Formula	$C_{52}H_{87}N_{13}O_{15}$	M.Wt	1134.33
Solubility	≥ 113.4mg/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			

Background

Large T antigen - rhesus polyomavirus 560-568 has a peptide sequence of Ser-Glu-Phe-Leu-Leu-Glu-Lys-Arg-Ile.

T antigen is required for viral DNA replication, transcription, and virion assembly. In addition, T antigen targets multiple cellular pathways, including those that regulate cell proliferation, cell death, and the inflammatory response. The large T-antigen plays a key role in regulating the viral life cycle by binding to the viral origin of DNA replication where it promotes DNA synthesis. Also as the polyomavirus relies on the host cell machinery to replicate the host cell needs to be in s-phase for this to begin. Due to this, large T-antigen also modulates cellular signaling pathways to stimulate progression of the cell cycle by binding to a number of cellular control proteins.

Polyomaviruses have been extensively studied as tumor viruses in humans and animals, leading to fundamental insights into carcinogenesis, DNA replication and protein

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processing. The tumor suppressor molecule p53 was discovered, for example, as a cellular protein bound by the major oncoprotein (cancer-causing protein) T antigen made by Simian vacuolating virus 40 (SV40).

References:

1. An P, Saenz Robeles MT, Pipas JM. pLarge T antigens of polyomaviruses: amazing molecular machinesq. Annu Rev Microbiol. 2012; 66:213-36.
2. White MK, Gordon J, Reiss K, et al. (December 2005). "Human polyomaviruses and brain tumors". Brain Research. Brain Research Reviews 50 (1): 69-85.