Product Data Sheet

Product Name: G4232
Cat. No.: GC81835

Chemical Properties

Cas. No.			
Formula		M.Wt	
Solubility		Storage	Store at -20°C, away from moisture
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C 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

G4232 is an immune-silent BCL2 antisense oligonucleotide that binds to BCL2 mRNA to induce target degradation and inhibit Bcl-2 protein translation. G4232 carries 5'-methylcytosine in its two CpG motifs, which eliminates CpG-mediated immunostimulatory activity and does not cause significant splenomegaly or elevated plasma IL-12 levels in SCID mice. G4232 induces Apoptosis. G4232 inhibits tumor growth in a melanoma xenograft model. G4232 can be used in studies of melanoma and prostate cancer [1] [2].

In Vivo, G4232 (5 mg/kg/day; s.c.; continuous infusion via miniosmotic pump; 14 days) reduces

melanoma xenograft tumor growth by approximately 40%, downregulates Bcl-2 expression by 60%, and increases tumor cell apoptosis to 3.6% in SCID mice[1]. Intraperitoneal bolus administration of G4232 (5 mg/kg/day; i.p.; daily bolus injection; 14 days) produces equivalent antitumor activity, Bcl-2 downregulation, and apoptosis induction as continuous subcutaneous infusion in the melanoma xenograft model[1].

In Vitro, G4232 (400 nM; 5 h transfection, 67 h post-incubation, total 72 h) does not induce significant apoptosis in DU145 prostate cancer cells with either mock transfection or AS1 bcl-2 knockdown[2]. G4232 exerts minimal effects on cell cycle progression in both mock-transfected and AS1 bcl-2 knockdown DU145 prostate cancer cells, and only causes a moderate increase in S-phase cells that fail to incorporate BrdUrd[2]. G4232 (400 nM; 3 days) induces only minimal reactive oxygen species production in mock-transfected, AS1, and AS2 DU145 prostate cancer cells[2].

References:
[1]. Wacheck V, et al. Antitumor effect of G3139 Bcl-2 antisense oligonucleotide is independent of its immune stimulation by CpG motifs in SCID mice. Antisense & nucleic acid drug development. 2002 Dec;12(6):359-67.
[2]. Raffo A, et al. Antisense RNA down-regulation of bcl-2 expression in DU145 prostate cancer cells does not diminish the cytostatic effects of G3139 (Oblimersen). Clinical cancer research: an official journal of the American Association for Cancer Research. 2004 May 01;10(9):3195-206.