Product Data Sheet

Product Name: TPP-1
Cat. No.: GC61946

Chemical Properties

Cas. No.	2426685-25-6		
Formula	$C_{107}H_{150}N_{34}O_{32}S_2$	M.Wt	2488.67
Solubility		Storage	Store at -20°C,sealed storage, away from moisture and light
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			

SGQYASYHCWCWRDPGRSGGSK

Background

TPP-1 is a potent inhibitor of the PD-1/PD-L1 interaction. TPP-1 binds specifically to PD-L1 with a high affinity (KD=95 nM). TPP-1 inhibits human tumor growth in vivo via reactivating T-cell function[1].

TPP-1 binds to PD-L1 with high affinity and blocks PD-1/PD-L1 interaction. The KD value of PD-L1 with TPP-1 peptide is about 95 nmol/L (around five times less than that with PD-1), The binding site of TPP-1 to PD-L1 is close to the interactive site of PD-1 and PD-L1[1].TPP-1 (4 μM) reactivates T-

cell functions, it induces IFNγ release significantly higher than control and SPP-1, and the TPP-1 group shows similar outcomes for cell proliferation[1].

TPP-1 (subcutaneous injection; 4 mg/kg; every other day eight times; 32 days) inhibits tumor growth (compared with SPP-1 and control). The growth rate in TPP-1-treated mice is 56%. And when administered in the absence of T cells (control group), TPP-1 has no effect on the growth of the H460-luc tumors[1].

References:
[1]. Chunlin Li, et al. Peptide Blocking of PD-1/PD-L1 Interaction for Cancer Immunotherapy. Cancer Immunol Res. 2018 Feb;6(2):178-188.