Product Data Sheet

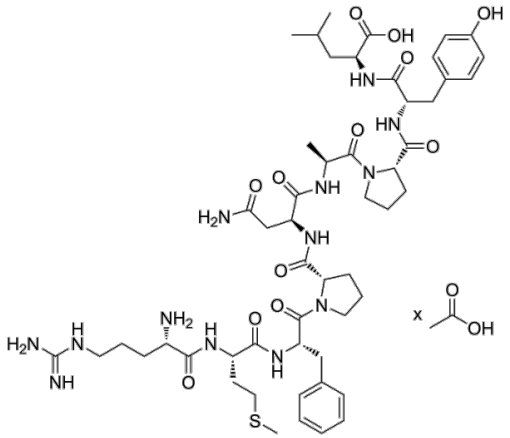
Product Name: WT1 126-134 peptide acetate
Cat. No.: GC79401

Chemical Properties

Cas. No.

Formula	$C_{52}H_{77}N_{13}O_{12}S \cdot xC_2H_4O_2$	M.Wt	1108.31
Solubility	DMSO: 100 mg/mL (Need ultrasonic)	Storage	Sealed storage, 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

WT1 126-134 peptide acetate is a Wilms' tumor oncogene protein (WT1) peptide (RMFPNAPYL).

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WT1 126-134 peptide acetate is presented by HLA-A0201 and induces cytotoxic CD8 T cells capable of killing WT1+ positive tumor cells. WT1 126-134 can form stable complexes with the H-2Db (mouse) or HLA-A0201 (human) molecules. WT1 126-134 peptide acetate/HLA-A0201 complex has an extremely high affinity (K d = 0.2 nM) with the humanized monoclonal antibody (IgG1). WT1 126-134 peptide acetate can be used as a vaccine for T cells or as a target for antibodies [1] [2] [3].

In Vivo, WT1 126-134 peptide (100 µg, emulsified with incomplete Freund's adjuvant, i.p., once a week for 2 weeks) acetate induces epitope-specific CTL, but fails to produce a significant anti-tumor effect in the TRAMP-C2 model[1]. WT1 126-134 peptide (100 µg, emulsified with incomplete Freund's adjuvant, i.p., once a week for 3 weeks) acetate combined with the auxiliary peptide (WT135-52) significantly enhances CTL induction and delays tumor growth induced by mWT1-C1498 cells in mice[3].

References:

[1]. Shirakawa T, Kitagawa K. Antitumor effect of oral cancer vaccine with Bifidobacterium delivering WT1 protein to gut immune system is superior to WT1 peptide vaccine. Hum Vaccin Immunother. 2018 Jan 2;14(1):159-162.
[2]. David A, et al, A Cytotoxic Human Monoclonal Antibody Recognizing Cell Surface WT1 Peptide/HLA-A2 Complexes. Blood 2011; 118 (21): 1677.
[3]. Nakajima H, et al. Identification of mouse helper epitopes for WT1-specific CD4+ T cells. Cancer Immunol Immunother. 2021 Nov;70(11):3323-3335.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA