Product Data Sheet

Product Name: GP(33-41)
Cat. No.: GC34252

Chemical Properties

Cas. No.	161928-86-5		
SMILES	Lys-Ala-Val-Tyr-Asn-Phe-Ala-Thr-Cys		
Formula	$C_{46}H_{69}N_{11}O_{13}S$	M.Wt	1016.18
Solubility	Soluble 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	GP(33-41)		

Protocol

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Kinase experiment:

Binding experiments are performed at 37°C with T2-Db cells, with a Millipore MultiScreen assay system. The H-2Db LCMV antigen gp276-286 (SGVENPGGYCL) is radioiodinated, and the radiolabeled peptide is purified. Cells (2×105 per well) are incubated in MultiScreen-HV 96-well filtration plates (pore size, 0.45 mm) with 125I-gp276-286 (10 nM [final concentration]) for 90 min at 37°C. Cells are washed three times with ice-cold 1% BSA-PBS and by filtration under vacuum. The radioactivity bound to the cells retained on the filter is counted with a gamma counter. Direct binding is measured in the absence (total binding) or the presence (nonspecific binding) of a 1,000-fold excess (10 mM) of unlabeled gp276-286. Specific binding to H-2Db is defined as the difference between total binding and nonspecific binding. Nontransfected T2 cells are used as a negative control under the same experimental conditions. Competition assays are performed with increasing concentrations (10-10 to 10-5 M) of unlabeled peptides competing against a fixed concentration (10-8 M) of 125Igp276-286. The percent inhibition of binding is calculated as 100 × [1-(counts per minute in the presence of competitor - counts per minute of nonspecific binding)/counts per minute of specific binding].

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References:

[1]. Gairin JE, et al. Optimal lymphocytic choriomeningitis virus sequences restricted by H-2Db major histocompatibility complex class I molecules and presented to cytotoxic T lymphocytes. J Virol. 1995 Apr;69(4):2297-305.

Background

GP(33-41), a 9-aa-long peptide, is the optimal sequence of the GP1 epitope of lymphocytic choriomeningitis virus, and can upregulate H-2Db molecules at the RMA-S (Db Kb) cell surface with SC50 of 344 nM.

GP(33-41) sensitizes MC57 and T2-Db cells to lysis with ED50s of 0.9 ± 0.6 and 2.5 ± 0.7 nM[1].

[1]. Gairin JE, et al. Optimal lymphocytic choriomeningitis virus sequences restricted by H-2Db major histocompatibility complex class I molecules and presented to cytotoxic T lymphocytes. J Virol. 1995 Apr;69(4):2297-305.