

p2Ca acetate(142606-55-1 free base)

Chemical Properties

CAS No. :

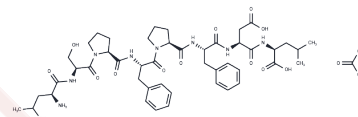
Formula: C49H70N8O14

Molecular Weight: 995.15

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	p2Ca acetate is a naturally processed peptide that derives from a ubiquitous enzyme, alpha-ketoglutarate dehydrogenase, and is recognized in association with the class I MHC protein, Ld, by a CTL clone (2C).
Targets(IC50)	Others
In vitro	p2Ca and QL9 peptides assume distinct conformations when bind to Ld and, furthermore, demonstrate that there is flexibility in peptide binding within the MHC class I cleft. Ld antigenic peptide p2Ca (LSPFPFDL) is 8-mer that lack the proline at position 2 and thus use alternative amino-terminal anchors. The p2Ca octamer is identified as the ligand that is naturally processed and presented to the Ld-alloreactive T cell clone, 2C [1]. p2Ca, is immunodominant in allorecognition of the murine MHC class I molecule H-2Ld. The majority of Ld-alloreactive T-cell clones are specific for Ld-p2Ca and this immunodominance is not due to peptide cross-reactivity[2]. p2Ca is a ubiquitously expressed self-peptide. p2Ca is derived from the mouse mitochondrial enzyme α -ketoglutarate dehydrogenase. p2Ca is present in every tissue of BALB/c mice that has been examined, including the spleen and thymus. It is also expressed by mouse tumor cell lines such as the mastocytoma P815. CTL derived in vitro recognize specifically the p2Ca/L d complex and use V β 8 regions predominantly. The cultured cells lyse target cells with lower levels of p2Ca than the levels used for induction. This result suggests that it may be possible to use peptides at high concentrations to elicit CTL that react with endogenous levels of a peptide/class I complex[3].
In vivo	BALB/c mice, coinjected with a syngeneic BALB/c myeloma and exogenous p2Ca, are able to reject the tumor. The p2Ca/L d system may thus provide a model for evaluating the parameters for effective immunotherapy with tumor-associated peptides[3].

Solubility Information

Solubility	DMSO: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0049 mL	5.0244 mL	10.0487 mL
5 mM	0.201 mL	1.0049 mL	2.0097 mL
10 mM	0.1005 mL	0.5024 mL	1.0049 mL
50 mM	0.0201 mL	0.1005 mL	0.201 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hornell TM, et al. Peptide length variants p2Ca and QL9 present distinct conformations to L(d)-specific T cells. J Immunol. 2001 Oct 15;167(8):4207-14.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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