Product Data Sheet

Product Name: MHC class II antigen (45-57) [Homo sapiens]
Cat. No.: GP10135

Chemical Properties

Cas. No.			
Formula	$C_{73}H_{112}N_{18}O_{25}$	M.Wt	1641.78
Solubility	≥ 164.2mg/mL 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			

Background

MHC class II antigen (45-57) [Homo sapiens],(C83H126N20O27S), a peptide with the sequence H2N-Asp-Leu-Asp-Lys-Lys-Glu-Thr-Val-Trp-His-Leu-Glu- Glu-OH, MW= 1868.07. MHC (major histocompatibility complex) Class II molecules are found only on antigen-presenting cells and lymphocytes.The antigens presented by class II peptides are derived from extracellular proteins (not cytosolic as in class I); hence, the MHC class II-dependent pathway of antigen presentation is called the endocytic or exogenous pathway.Loading of MHC class II occurs by phagocytosis; extracellular proteins are endocytosed, ingested in lysosomes, and created by the class II MHC molecule prior to the molecule's migration to the cellular membrane[1]. MHC class two is formed of two chains, α and β, each having two domains—α1 and α2 and β1 and β2—each chain having a transmembrane domain, α2 and β2, respectively, anchoring the MHC class II molecule to the cell membrane.[5] The peptide-binding groove is formed of the heterodimer of α1 and β1.MHC class II molecules in humans have five to six isotypes. Classic molecules present peptides to CD4+ lymphocytes. Nonclassic molecules, accessories, with intracellular functions, are not exposed on cell membranes, but in internal membranes in lysosomes, normally loading the antigenic peptides onto classic MHC class II molecules[2].

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

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References:
1. MHC Sequencing Consortium (1999). "Complete sequence and gene map of a human major histocompatibility complex". Nature 401 (6756): 921–923.
2. Abbas; Lichtman A.H. (2009). "Ch.3 Antigen capture and presentation to lymphocytes". Basic Immunology. Functions and disorders of the immune system (3rd ed.).

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