Product Data Sheet

Product Name: Concanavalin A
Cat. No.: GC18572

Chemical Properties

Cas. No.	11028-71-0		
Formula		M.Wt	
Solubility	Soluble in water	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	Concanavalin A		

Protocol

Cell experiment [1]:

Cell lines	CD8+ CTL
Preparation Method	Cells were cultured in the RPMI 1640 medium supplemented with 10% (v/v) FCS and 5% (v/v) culture supernatant of rat spleen cells.
Reaction Conditions	Cells were stimulated with 5 μg/ml of concanavalin A for 24 h.

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

Product Data Sheet

Applications	Concanavalin A treatment could preferentially decrease the cell viability of CD8+ population prepared from the immunized mice. A certain group(s) of CD8+ population in the immunized mice might be highly susceptible to concanavalin A. The activation through T cell receptors, especially PKC activation, increases the sensitivity of CD8++ CTL to concanavalin A.

References:

[1]. Kenichi T. et al. Concanamycin A, a vacuolar type H^+-ATPase inhibitor, induces cell death in activated CD8+ CTL. Cytotechnology 1997 July; 25: 127–135.

Background

Concanavalin A belongs to the concanamycins, a family of macrolide antibiotics isolated from Streptomyces diastatochromogenes that are highly active and selective inhibitors of the vacuolar proton-ATPase (v-[$H^{[+]}$]ATPase). Among them, Concanavalin A is the most selective and potent inhibitor of the V-[$H^{[+]}$]ATPase.[1]

n vitro study indicated that Concanavalin A was active at 5 nM and completely blocked influenza virus infection at 10 nM in MDCK cells. Results showed that concanamycin A blocked viral replication by inhibiting the v-[$H^{[+]}$]ATPase, thus preventing acidification of endosomes and release of virions into the cytoplasm. An early event in virus infection is the target of concanamytin A. In addition, the inhibition of the v-[$H^{[+]}$]ATPase by concanamycin A prevents endosomal acidification, inhibiting virus release from endosomes.[1]

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

Product Data Sheet

References:
[1].Rosario G. et al. Concanavalin A blocks influenza virus entry into cells under acidic conditions. FEBS Letters 1994 June; 349; 327-330.

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