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DATASHEET

Concanavalin A (ConA)

Product overview

Name	Concanavalin A (ConA)
Cat No	HB6364
Alternative names	ConA, Con A
Biological action	Activator
Description	T-cell stimulating lectin

Biological Data

Biological description

Overview

Concanavalin A (also commonly known as ConA) is a mannose/glucose-binding lectin which irreversibly binds to glycoproteins on cell membranes causing the glycoprotein to internalize preferentially to the mitochondria to induce programmed cell death via autophagy.

Uses

Con A has a wide range of applications. It is a T-cell mitogen which is frequently used to stimulate / activate T-cells and activate the immune response.

ConA is often used to characterize glycoproteins and other glycan presenting cells and in addition, also agglutinates erythrocytes and a variety of cell types.

ConA shows various biological actions and can induce programmed cell death via mitochondria mediated apoptosis and autophagy.

ConA and PMA are often used in combination to stimulate DNA and protein synthesis at a greater extent than when applied individually.

Active in vivo.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in water (10 mg/ml)

Chemical Data

CAS Number	11028-71-0
Source	Canavalia ensiformis
MDL number	MFCD00071069

References

Induction of autophagy by concanavalin A and its application in anti-tumor therapy.

Lei and Chang (2007) Autophagy 3(4)
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The use of concanavalin A to study the immunoregulation of human T cells.

Dwyer and Johnson (1981) Clin Exp Immunol 46(2)
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Concanavalin A: a potential anti-neoplastic agent targeting apoptosis, autophagy and anti-angiogenesis for cancer therapeutics.

Li et al (2011) Biochem Biophys Res Commun. 414(2)
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Effect of phorbol myristate acetate and concanavalin A on the glycolytic enzymes of human peripheral lymphocytes.

Marjanovic et al (1988) Biochim Biophys Acta. 970(1)
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ConA- and PNA-binding glycoproteins of human epidermis.

Reano et al (1984) J Invest Dematol 83(3)
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