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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 Dermatol 83(3)

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