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DATASHEET

Concanavalin A (ConA)

Product overview

Name Concanavalin A (ConA)

Cat NoHB6364Alternative namesConA, Con ABiological actionActivator

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.

<u>Uses</u>

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.

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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.

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