

Native *Canavalia ensiformis* Lectin

Cat. No. Lectin-1724C **Lot. No.** (See product label)

SPECIFICATION

Product Overview This product is canavalia ensiformis lectin which against alpha-linked mannose and glucose.

Species *Canavalia ensiformis*

Source *Canavalia ensiformis*

Description

Concanavalin A is a lectin protein (MW 104kDa), homotetramer 26 kDa; originally extracted from the jack-bean, *Canavalia ensiformis*. It binds specifically to certain structures found in various sugars α -mannosyl and α -glucosyl residues in glycoproteins. It was the first lectin to be available on a commercial basis and is widely used in biology and biochemistry to characterize glycoproteins and other sugar-containing entities. It is also used to purify macromolecules in lectin affinity chromatography. Concanavalin A interacts with diverse receptors containing mannose carbohydrates (serum and membrane glycoproteins). ConA agglutinate strongly erythrocytes without being blood group specific. Normal cell re agglutinated after trypsinisation. ConA is a also a lymphocyte mitogen. ConA reacts with many bacteria, like *E. coli* *Dictyostelium discoideum* et *B. subtilis* It is also widely believed to be involved in the interaction between alpha-mannosyl oligosaccharides on the surface of the HIV virus and the human T cell lymphocyte.

Inhibiting/Eluting sugars: 200 α -mM α -methyl mannoside / 200 mM α -methyl glucoside mixture.

Carbohydrate-Binding Specificity of Con A: (Man α 1,2Man α 1,2Man > Man α 1,2Man > α -Man > α -Glc > α GlcNAc

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Form	10 mM bicarbonate, 150 mM NaCl, pH 8, 0.1 mM Calcium chloride, 0.01mM manganese chloride and 0.05% sodium azide.
Applications	Conjugation, Puri. Conjugation to Sepharose 4B (solid phase columns) to purify glycoproteins, and viral antigen isolation. For conjugation azide should be removed. Dilute in buffer containing 0.1 mM calcium chloride. The optimum dilution should be determined by the individual lab. Con A has an Isoelectric point of about pH 4.5-5.5 and requires calcium or manganese ions at each of its four saccharide binding sites, these ions should be used in buffer. Do not use phosphate buffer for dilution of this lectin as it will decrease the activity of lectin.
Storage	Store at 2-8centigrade.
Concentration	10 mg/ml (Please refer to the vial label for the specific concentration)
GENE INFORMATION	
Synonyms	Concanavalin A, Concanavalin A, Canavalia ensiformis, Canavalia ensiformis lectin, ConA lectin, Canavalia ensiformis, ConA, Concanavalin A lectin, Con A lectin
UniProt ID	P02866

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