

Native *Canavalia ensiformis* Lectin, Biotin conjugated

Cat. No. Lectin-1722C **Lot. No.** (See product label)

SPECIFICATION

Product Overview This product is canavalia ensiformis lectin which against alpha-linked mannose and glucose (Biotin). Affinity purified Con A is conjugated with Biotin and purified on gel filtration column.

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 agglutinates strongly erythrocytes without being blood group specific. Normal cells re-agglutinate after trypsinisation. ConA is also a lymphocyte mitogen. ConA reacts with many bacteria, like *E. coli*, *Dictyostelium discoideum* and *B. subtilis*. It is also widely believed to be involved in the interaction between α -mannosyl oligosaccharides on the surface of the HIV virus and the human T cell lymphocyte.

Inhibiting/Eluting sugars: 200 μ M 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 >

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	α -Man > α -Glc > α GlcNAc
Form	10 mM bicarbonate, 150 mM NaCl, pH 8, 0.1 mM Calcium chloride, 0.01mM manganese chloride and 0.05% sodium azide. (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).
Applications	ELISA, IHC, WB. Histochemistry 1: 250-1:1000; WB 1:500-1:2,500; ELISA 1:500-1:2,500. Dilute biotinylated lectin in PBS containing 0.1 mM calcium chloride ions. For Histochemistry the tissues are processed same as for Immunohistochemistry, after blocking step biotinylated lectin is applied followed by streptavidin conjugated to enzyme and chromogen. For WB incubate membrane with blocking protein followed by biotinylated lectin, streptavidin enzyme conjugate and chromogen. For ELISA the target proteins are absorbed on ELISA plate at a concentration of 5-10 μ g/ml (50-100 μ l), followed by blocking with protein solution, Biotinylated lectin, Streptavidin enzyme conjugate, ELISA substrate. Please refer to Histochemistry, WB and ELISA protocol for detail information. The optimum dilution should be determined by the individual lab.
Storage	Store at 2-8centigrade.
Concentration	5 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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