Concanavalin A (Con A) from Jackbean *(Canavalia ensiformis)* meal (Lot 161101a)

L-CONA-1000MG **11/18**

DESCRIPTION

(1) FORM
Affinity purified, off-white lyophilised powder.

(2) BIOCHEMICAL / PHYSIOLOGICAL PROPERTIES
Con A is not blood group specific, has an affinity for terminal α-D-mannose and α-D-glucose residues and requires the presence of Ca^{2+} and Mn^{2+} for activity. Con A exists in dimeric (pH < 5.6), tetrameric (pH between 5.6 and 7.0) and aggregate (pH > 7.0) forms. An active dimer above pH 5.6 can be generated by succinylation. Con A exhibits mitogenic activity which is dependent upon its degree of aggregation.

(3) PROPERTIES

Activity:	20 µg/mL
Electrophoretic purity:	Electrophoresis was preformed using a 14% acrylamide gel.
UV absorbance:	In 100 mM NaCl; λ_{max} = 275.8; $E^{1\%}$ = 13.7.
Solubility:	Slightly hazy, colourless solution at 10 mg/mL in water.
Activity note:	Activity is determined using a twofold serial dilution of 1 mg/mL solution of Con A in PBS* (8.0 g NaCl, 0.3 g KCl, 0.2 g KH_2PO_4/L; pH 7.2) containing 1 mM Ca^{2+} and 1 mM Mn^{2+}. The activity is expressed as the lowest concentration to give agglutination of a 2% suspension of human red blood cells (type O) in PBS* after 1 hr incubation at room temperature.

(4) STORAGE / STABILITY / SAFETY

Storage temperature:	below -10°C
Shelf life:	> 3 years below -10°C
Safety statement:	22-24 / 25

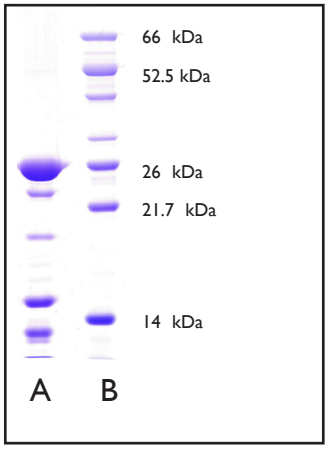

Figure 1. Isoelectric focusing of purified Con A shows that it exists as a heterogenous mixture of isoforms with pI values in the range of 4.5-5.5 (Entlicher et al., 1971).

lane A, Megazyme Con A, 10 µg;

lane B, low molecular weight markers (in-house standards).

*. ***Reference***
Entlicher, G.J., Kostir, V. and Kocourek, J. (1971) *Studies on phytohemmagglutinins. 8. Isoelectric point and multiplicity of purified concanavalin A.* Biochim Biophys Acta **236(3)**: 795-7.