FT-47496A

Labeled Concanavalin A (Con A)

Products Description

Product name cat.number	$\lambda_{exc}\backslash\lambda_{em}$. max. (nm)	Buffer
FITC-Con A FP-47496A, 5mg	494/525	0.05M Tris - 0.15M NaCl - 0.004M $CaCl_2$, pH 7.0. Contains 0.05% sodium azide as a preservative
TRITC-succinyl Con A FP-MS9930, 5mg FP-MS5680, 10mg	554/570	0.05M Tris - 0.15M NaCl - 0.004M $CaCl_2$, pH 7.0. Contains 0.05% sodium azide as a preservative
TRITC-Con A FP-MS9250, 2mg FP-MS9940, 5mg	554/570	0.05M Tris - 0.15M NaCl - 0.004M $CaCl_2$, pH 7.0. Contains 0.05% sodium azide as a preservative
SR101-succinyl Con A FP-MS9990, 5mg	596/615	0.05M Tris - 0.15M NaCl - 0.004M $CaCl_2$, pH 7.0. Contains 0.05% sodium azide as a preservative
SR101-Con A FP-MT0000, 5mg	596/615	0.05M Tris - 0.15M NaCl - 0.004M $CaCl_2$, pH 7.0. Contains 0.05% sodium azide as a preservative
FluoProbes 547H-Con A FP-FL9270, 10mg	557/572	
CY_{anine}3-Con A FP-WT8681, 1mg	555/570	
CY_{anine}5-Con A FP-LV5760, 1mg	646/662	

Storage: Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid freeze thaw cycles. Clarify by centrifugation.

Stability: The liquid material is stable for at least 1 year when stored frozen in aliquots with 0.05% sodium azide added as a preservative.

Description: Pure Succinyl *Canavalia ensiformis* lectin (Succinylated Con A) from Jackbean

Carbohydrate Specificity: α-Mannose, α-Glucose, Branched mannose

Inhibitory Carbohydrate: Methyl α-D-Mannopyranoside >> α–D-Mannose >> α-D-Glucose

Activity: Succinyl Con A is a weaker blood agglutinin than the native form of the lectin. Greater than 50µg/ml will be required to agglutinate neuraminidase treated human erythrocytes.

Directions for use

Tissue Sections

1. Wash and block tissue section. Do not use serum products, they contain glycoproteins which may lead to high levels of non specific background. After blocking, rinse briefly with Buffer (See reverse side).
2. Dilute Fluorescent Labeled Lectin to desired concentration 20-100 µg/ml using Buffer.
3. Incubate tissue section with Fluorescent Labeled Lectin for 30 minutes in a moist chamber.
4. Wash tissue section with Buffer three times.
5. Examine tissue section with Fluorescent microscope. Use appropriate filter.

Ref. M. Immbar et. al., (1973). Intnl. Journal of Cancer, 12, 93-99

Cell Suspension

1. Wash cells with Buffer (See reverse side.)
2. Collect cells by centrifugation.
3. Dilute Fluorescent Labeled Lectin to 100 µg/ml using Buffer.
4. Incubate approximately 1x106 cells with 1 ml diluted Fluorescent labeled Lectin for 15 minutes at room temperature or in a 37°C water bath.
5. Wash cells with Buffer three times using centrifugation.
6. Examine cells, with or without fixation with Fluorescent microscope. Use appropriate filter.

Ref. K. Phiss. (1977). Experimental Pathology, 14, S15

Fluorochromes must be protected from light.
Perform incubation, when practical, in a dark room or covered in foil.

Carbohydrate Inhibition

Inhibition of lectin binding may be accomplished by using one of two procedures:

A. Before incubating with Fluorescent Labeled Lectin, incubate section or cells with inhibitory carbohydrate for 30-60 minutes at room temperature. NOTE: Complete inhibition may NOT occur.

B. Preincubate diluted Fluorescent Labeled Lectin with inhibitory carbohydrate for 30-60 minutes at room temperature before applying to section or cells.

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Problem	Cause	Solution
Weak or no Staining	1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Low concentration of avidin conjugate. 4. Insufficient incubation time. 5. Inappropriate treatment of sample prior to labeling.	Causes #1 - #4 a. Increase incubation time. b. Increase concentration of samp le (on blot) lectin conjugate and/or avidin conjugate. a. Treat section or blot with a different blocking reagent.
High Background	1. Lectin conjugate and/or avidin conjugate is too concentrated. 2. Insufficient washing. 3. Insufficient blocking. 4. Sample contains endogenous enzymatic activity.	a. Decrease concentration of respective reagents. b. Shorten incubation times. a. Perform multiple washings and prolong washing time. a. Treat section or blot with a different blocking reagent. a. Determine if sample contains activity which would give background staining in the ab sence of the avidin conjugate.
Unexpected Staining Pattern	Multiple causes	a. Perform control reactions. b. Use other cytochemical technique to prove or disprove the findings.

References

- Gunther, G.R., et al. (1973) Proc.Nat.Acaf.Sci. USA, 70:1012.
- Loontiens, F.G., et al. (1976) Biochemistry 16:159.
- Huet, C., et al. (1974) Biochem.Biophys.Acta. 365:28.

Technical and scientific information

Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- FITC-dextran, FP-67369A

Also available:

PolyLysine AKG460
Cultrex PolyLysine, certified 794511
PolyLysine Hydrobromide ANI420
PolyLysine Plates Q74480
Molday ION GV6230

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/
Please inquire for higher quantities (availability, shipment conditions).

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