

CERTIFICATE OF ANALYSIS

DBA

Code Number AMS.JOM-J104
 Lot Number 91907
 Product Name Lectin * from * Dolichos * biflorus/DBA
 Source
 Product form Freeze-dried powder (salt-free)
 Concentration - mg/ml
 Storage Store refrigerated at 2-8°C.
 Stability This material is stable for at least 1 year when stored refrigerated at 2-8°C.
 Analysis Ion exchange chromatography
 Abs.280nm **0.64** (Concentration 0.5 mg/ml)
 Activity Agglutinates a 2% suspension of rabbit erythrocytes.

62.5 µg protein/ml

Solubility

| No. | Buffer | evaluation |
|-----|--|------------|
| A | Phosphate-buffered saline (PBS)(pH 7.2) | ○ |
| B | 10mM Tris-HCl (pH 7.4) | ND |
| C | 10mM Sodium phosphate-buffered (pH 7.4) | ND |
| D | 10mM Potassium phosphate-buffered (pH 7.4) | ND |
| E | 10mM Sodium citrate-buffered (pH 7.4) | ND |

<Method> Reconstitute to 0.5mg/ml with each buffer, after centrifuge by compact centrifuge for 2min., look see the precipitation

<Symbol> ○: No precipitation (soluble) △: Little precipitation (slightly soluble)
 ×: Increased precipitation (insoluble) ND: Not Done

Procedure/ Remarks

Reconstitute to 1-2 mg/ml with above buffer. Avoid stirring, as this causes precipitation at bottom. The buffer and this material mix naturally. For most applications, we recommend a freshly prepared working solution in the above buffer.

Store liquid frozen in aliquots at -20°C. Avoid freeze-thaw cycles. Clarify by centrifugation.

Warning

- For research use only. Not for drug.
- The aluminum seals have sharp edges and the vial itself may have cracks which can cause lacerations. Use caution when opening the vial.
- Wear safety glasses and gloves to prevent contact skin and eyes.
- In case of contact with skin or eyes, wash immediately with water. Consult a physician if irritation occurs or if there is any indication of an allergic response.
- We recommend that this reagent is handled only by those persons who have been trained in laboratory techniques and that they are used in accordance with the principles of good laboratory practice.
- Some reagents contain natural purified proteins in a buffer containing 0.02% sodium azide. MSDS can be consulted for these items.

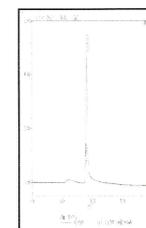
Lectin Information Sheet

| DBA <i>Dolichos biflorus</i> Agglutinin | |
|---|--|
| DBA | Code : J104 Pkg. : 5mg |
| DBA-Biotin | Code : J204 Pkg. : 1mg |
| DBA-FITC | Code : J504 Pkg. : 1mg |
| DBA-HRP | Code : J404 Pkg. : 1mg |
| Origin | <i>Dolichos biflorus</i> (Horse gram) |
| Sugar Specificity | D-GalNAc |
| Oligosaccharide Specificity | GalNAcα1-3GalNAc ^{1),2)} |
| Specific Oligosaccharides | <p>As for Details: Cabos DB No. N/A</p> |
| Hemagglutinating Activity | Yes |
| Mitogen Activity | No |
| Blood Specificity | A ₁ ³⁾ |
| Molecular Weight | 29,408Da [This is the MW of the unprocessed precursor] |
| Amino Acids length | 275A.A. [This is the length of the unprocessed precursor] |
| Gene Length | cDNA: 1,075bp ⁴⁾ |
| Subunit | Homotetramer |
| Family | Legume lectin family |
| Accession No. (UniProtKB) | P05045 |
| PDB ID (3D Structure) | 1BJQ, 1LU1 (GalNAcα1-3GalNAc), 1LU2 (GalNAc) ⁵⁾ |
| Metallic ion | Calcium ion, Manganese ion, and Zinc ion |
| Glycosylation Site | Asn138 (N-linked) |
| Cabos DB No. | N/A |

Reference

- 1) Etzler ME, Kabat EA, *Biochemistry*, (1970), 9,869
- 2) Etzler ME, Gupta S, Borrebaeck C, *J Biol Chem.*, (1981), 256, 2367
- 3) Cassat F, Peters T, Etzler M, Korzhagina E, Nifant'ev N, Perez S, Imberty A, *Eur J Biochem.*, (1996), 239, 710
- 4) Schnell DJ, Etzler ME, *J Biol Chem.*, (1987), 262, 7220
- 5) Hamelnyck TW, Loris R, Bouckert J, Dao-Thi MH, Strecker G, Imberty A, Fernandez E, Wynn L, Etzler ME, *J Mol Biol.*, (1999), 286, 1161

Analysis Ion exchange chromatography



Column Mono S (GE)
 Sample 1.0mg/ml * 20 µl inject
 Flow rate 1.0ml/min
 Detection Abs. 280nm
 Solvent A 50mM β-Alanine-Acetate pH5.0
 Solvent B Solvent A containing 0.5M NaCl
 Gradient B conc. 0-100% (4-14min)