

Active Native Spindle tree *Euonymus europaeus* Lectin (EEL/EEA), AP-Conjugated

Cat. No. EEL/EEA-011S **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Native Spindle tree *Euonymus europaeus* Lectin (EEL/EEA) - AP (Alkaline Phosphatase)

Blood Group Specificity: Non-specific

Preferred Sugar Specificity: Gal α 3Gal

Inhibiting or Eluting Sugar: Lactose

Divalent Ions: Ca $^{++}$, Zn $^{++}$

Mitogenic Activity: Yes

Hazardous Shipping: Non-hazardous

Carbohydrate Specificity: Gal α 3Gal, high mannose N-type glycans

Species

Spindle tree

Source

Spindle tree

Description

Euonymus europaeus lectin or agglutinin (EEL/EEA) is affinity purified and is a homodimer consisting of subunits of 17 kDa linked by disulfide bonds. EEL consists of six closely related lectins (isoforms). Previous reports of higher molecular weight and overestimated carbohydrate percentage are attributed to lectin-glycoprotein complexes and not the *Euonymus europaeus* lectin itself. This lectin is characteristic of its erythrocyte agglutinating properties and specificity for blood groups B and H. It has a stronger binding of the B oligosaccharide with higher affinity for B-type II in comparison to H structures with Gal α 1,3 structures. Conversely, it has also been reported that EEL has preferential binding to H blood group-related carbohydrates

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

over the B blood group due to similarities in the β -trefoil fold found in EEL and ricin B-like lectins. EEL's general pattern allows it to interact with both α -fucose residues on B and H blood groups as well as high mannose N-type glycans. This lectin binds to endothelial cells from human and non-human sources and recognizes carbohydrate structures on the surface of stimulated murine peritoneal lymphoid cells. EEL also has applications as a endothelial/epithelial marker in canine tissues and has been studied in Kashin-Beck disease. Alkaline phosphatase (AP) is conjugated to WGA to show the binding of WGA in many applications including Western blotting and ELISA. Alkaline phosphatase is a large protein (140 kDa) that catalyzes the hydrolysis of phosphate groups from a substrate resulting in a colored or fluorescent product. The optimal enzymatic activity of this protein is between pH 8 and 10, and its reaction rate remains linear, improving sensitivity over time.

Form	Liquid
Bio-activity	50 mg/ml will agglutinate human A2 erythrocytes.
Purity	High Purity Grade
Stability	Shelf Life: 1 year
Storage	Store frozen at -20 centigrade in amber vials or covered with foil in appropriate aliquot sizes. Avoid freeze thaw cycles. Can be stored at 2-8 centigrade for short term use. Clarify by centrifugation, if needed.
Concentration	1 mg/mL

GENE INFORMATION

Official Symbol	EEL/EEA
------------------------	---------

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Synonyms

Euonymus europaeus Lectin; EEL/EEA

 Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA