

PHA-E4 – Red Kidney Bean Lectin E4

Catalog Number:	MGC-J111
Package:	5 mg
Form:	Lyophilized powder (salt-free)
Storage:	Store at 2–8°C (Stable for 1 year at 4°C)
Specifications	Agglutination activity: < 10 µg protein/mL (rabbit erythrocytes, 2% v/v) Purity: 1 major peak (ion exchange chromatography)
Handling Instructions	• Add buffer to lectin and adjust the concentration to 1–2 mg/mL. Refer to LECTIN&GLYCOANALYSIS NEWS for suitable buffers. • Avoid vigorous stirring, as it may cause precipitation. Allow it to dissolve naturally. • Dilute to appropriate concentration with buffer immediately before use. • After dissolving, aliquot and store frozen at -20°C. • Do not subject to repeated freeze-thaw cycles.
Cautions	• Always check the label for important handling information. • Ensure the product is secured to prevent tipping or dropping. • Be cautious when opening the container to avoid injury. • Avoid direct contact with the reagent. Wear safety goggles, gloves, and a mask. • In case of contact with eyes, mouth, or skin, rinse immediately with plenty of water and seek medical advice if necessary. • Dispose of waste in accordance with relevant laws and regulations. • This product is for research use only. Do not use for pharmaceutical or other purposes.
Origin	Red kidney bean (<i>Phaseolus vulgaris</i>)
Sugar Specificity	D-GalNAc
Mitogenic Activity	None
Blood Group Specificity	O > A, B
Structure	A glycoprotein with a molecular weight of 128,000 [Ref: 5]. Red kidney beans contain five types of tetrameric lectins composed of non-covalently bound E and/or L subunits (E4, E3L1, E2L2, E1L3, L4)

[Refs: 6–9]. PHA-E4 is an isolectin composed solely of E subunits with agglutination activity, pI = 5.95

Features

Binds to biantennary and branched triantennary complex-type N-glycans at β -Man 3-position. Binding is enhanced by the presence of bisecting GlcNAc but weakened by terminal sialic acids [Ref: 9]. Binding is inhibited by 0.1 M tetraborate.

References

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- 5) Rigas, D. A., et al., Ann. N. Y. Acad. Sci., 113, 800 (1964)
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