SANTA CRUZ BIOTECHNOLOGY, INC.

Legumin (1.BB.78): sc-57899

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Legumin is one of the main storage proteins located in pea seed vacuoles, and it is a characteristic ingredient of the seeds of leguminous and nonleguminous plants. Legumin is an albuminous substance that resembles casein and functions as the source of sulfur-containing amino acids in seed meals. A number of paralogous genes encode for Legumin; the polypeptides are cleaved post-translationally and can form mixed hexamers. The regulation of Legumin is under developmental control and is influenced by the changing environment. The molecules of Legumin are able to group together and form nanoparticles and can chemically cross-link with glutaraldehyde. Legumin is a potent inductor of a cytostatic phenomenon that promotes the increase of the chromatin condensation.

REFERENCES

1. Lawrence, M.C., Izard, T., Beuchat, M., Blagrove, R.J. and Colman, P.M. 1994. Structure of phaseolin at 2.2 A resolution. Implications for a common vicilin/Legumin structure and the genetic engineering of seed storage proteins. J. Mol. Biol. 238: 748-776.
2. Häger, K.P., Braun, H., Czihal, A., Müller, B. and Bäumlein, H. 1995. Evolution of seed storage protein genes: Legumin genes of *Ginkgo biloba*. J. Mol. Evol. 41: 457-466.
3. Häger, K.P., Müller, B., Wind, C., Erbach, S. and Fischer, H. 1996. Evolution of angiosperm diversification. FEBS Lett. 387: 94-98.
4. Tiedemann, J., Neubohn, B. and Müntz, K. 2000. Different functions of vicilin and Legumin are reflected in the histopattern of globulin mobilization during germination of vetch (*Vicia sativa L.*). Planta 211: 1-12.
5. Casey, R., Christou, P., Domoney, C., Hedley, C., Hitchin, E., Parker, M., Stoger, E., Wang, T. and Zasiura, C. 2001. Expression of Legumin and vicilin genes in pea mutants and the production of Legumin in transgenic plants. Die Nahrung 45: 385-387.
6. Schwenke, K.D., Henning, T., Dudek, S., Dautzenberg, H., Danilenko, A.N., Kozhevnikov, G.O. and Braudo, E.E. 2001. Limited tryptic hydrolysis of pea Legumin: molecular mass and conformational stability of Legumin-T. Int. J. Biol. Macromol. 28: 175-182.
7. Kozhevnikov, G.O., Danilenko, A.N., Braudo, E.E. and Schwenke, K.D. 2001. Comparative studies on thermodynamic characteristics of pea Legumin and Legumin-T thermal denaturation. Int. J. Biol. Macromol. 29: 225-236.
8. Stöger, E., Parker, M., Christou, P. and Casey, R. 2001. Pea Legumin matrix. Plant Physiol. 125: 1732-1742.
9. Mirshahi, T., Irache, J.M., Nicolas, C., Mirshahi, M., Faure, J.P., Gueguen, J., Hecquet, C. and Orecchioni, A.M. 2003. Adaptive immune responses of Legumin nanoparticles. J. Drug Target. 10: 625-631.

SOURCE

Legumin (1.BB.78) is a mouse monoclonal antibody raised against plant Legumin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Legumin (1.BB.78) is recommended for detection of Legumin of plant origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.