Product information

Antibody name: anti-hellethionin

Product number: H13H-1

Product description: polyclonal antibody;
contains 0.01% NaN$_3$

Origin: rabbit

Immunogen: mixture of extracted hellethionins A, B, C, D, E and G from *Helleborus purpurascens* conjugated to ovalbumin

Immunodetection: ELISA (1 : 256.000); Western blot (1 : 500 for ECL)

Immunocrossreaction: reacts with Hellethionin A, B, C, D, E and G from *H. purpurascens*. The crossreaction with other plant thionins was not analysed.

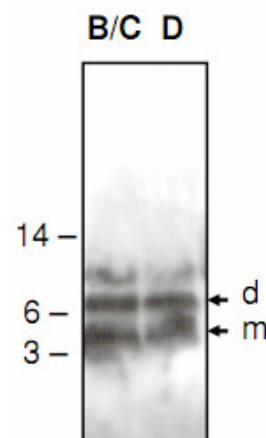**Storage:** short term +4°C; long term -20°C. Repeated freezing and thawing is not recommended.

Quantity: 100 µl

Western blot analysis extracted hellethionins B, C and D with anti-hellethionin. M – monomer, d – dimer forms of hellethionin.

Protein description: Hellethionins (Milbradt et el. 2003) belong to a family of plant thionins, a small-sized multiple-cysteine peptides that are involved in the plant defence against pathogens. The antimicrobial activity and cytotoxicity of thionins have led to the development of two potential applications of thionins: in agriculture transgenic plants containing thionin genes can enhance pathogen resistance, and targeting of thionins by tumor-specific antibodies is expected to support antitumor therapy.

Literature:
1.   Milbradt A. G., Kerek F., Moroder L., and Renner C. (2003) Structural characterisation of hellethionins from *Helleborus purpurascens*. Biochemistry 42, 2404 – 2411
2.   Silverstein K. A., Moskal W. A. Jr., Wu H. C., Underwood B. A., Graham M. A., Town C. D., VandenBosch K. A. (2007) Small cysteine-rich peptides resembling antimicrobial peptides have been under-predicted in plants. Plant J. 51, 262 – 280

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