Datasheet for ABIN965865

anti-CESA1 antibody (N-Term)

11 Publications

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Overview

Quantity:	0.1 mg
Target:	CESA1
Binding Specificity:	N-Term
Reactivity:	Arabidopsis thaliana
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CESA1 antibody is un-conjugated
Application:	Immunohistochemistry (IHC)

Product Details

Immunogen:	Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to near N-terminal residues of Plant Thale cress (Arabidopsis thaliana) CESA1 (Cellulose synthase A catalytic subunit 1)

Target Details

Target:	CESA1
Alternative Name:	CESA1 (CESA1 Products)
Background:	CESA1 (Cellulose synthase A catalytic subunit 1) catalytic subunit of cellulose synthase terminal complexes ('rosettes'), required for beta-1,4-glucan microfibril crystallization, a major mechanism of the cell wall formation. CESA1 (Cellulose synthase A catalytic subunit 1) is involved in the primary cell wall formation. CESA1 (Cellulose synthase A catalytic subunit 1) is

Target Details

	required during embryogenesis for cell elongation, orientation of cell expansion and complex cell wall formations, such as interdigitated pattern of epidermal pavement cells, stomatal guard cells and trichomes. CESA1 plays a role in lateral roots formation, but seems not necessary for the development of tip-growing cells such as root hairs. The presence of each protein CESA1 and CESA6 is critical for cell expansion after germination. CESA1 interacts with CESA3 and CESA6. Assembly with CESA3 and CESA6 is required for functional complex in primary cell wall cellulose synthesis. CESA1 is expressed in germinating seeds, seedlings, roots, stems, shoots leaves and flowers, but not in mature flowers. CESA1 is expressed throughout the embryo during all steps of embryogenesis, and decrease toward the bent-cotyledon stage. Higher levels in tissues undergoing primary cell wall formation, and drop of expression when secondary wall synthesis takes place. High levels in developing seedlings and elongating stems, with a decrease at later growth stages. Synonyms: F8B4.110, RSW1
Pathways:	Cellular Glucan Metabolic Process

Application Details

Restrictions:	For Research Use only

Handling

Storage:	4 °C

Publications

Product cited in:	Parrotta, Faleri, Guerriero, Cai: "Cold stress affects cell wall deposition and growth pattern in tobacco pollen tubes." in: **Plant science : an international journal of experimental plant biology**, Vol. 283, pp. 329-342, (2019) (PubMed). Gillmor, Poindexter, Lorieau, Palcic, Somerville: "Alpha-glucosidase I is required for cellulose biosynthesis and morphogenesis in Arabidopsis." in: **The Journal of cell biology**, Vol. 156, Issue 6, pp. 1003-13, (2002) (PubMed). Ellis, Karafyllidis, Wasternack, Turner: "The Arabidopsis mutant cev1 links cell wall signaling to jasmonate and ethylene responses." in: **The Plant cell**, Vol. 14, Issue 7, pp. 1557-66, (2002) (PubMed).

Burn, Hocart, Birch, Cork, Williamson: "Functional analysis of the cellulose synthase genes CesA1, CesA2, and CesA3 in Arabidopsis." in: **Plant physiology**, Vol. 129, Issue 2, pp. 797-807, (2002) (PubMed).

Richmond: "Higher plant cellulose synthases." in: **Genome biology**, Vol. 1, Issue 4, pp. REVIEWS3001, (2001) (PubMed).

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