

# Agrisera

This product is for research use only (not for diagnostic or therapeutic use)

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product **AS12 2582**

## CesA4 (IRX5) | Cellulose synthase A catalytic subunit 4 [UDP-forming]

### product information

**Background** | **CesA4 (IRX5) (EC=2.4.1.12)** is a catalytic subunit of xylem-specific cellulose synthase enzyme, involved in secondary cell wall biosynthesis - cellulose synthase terminal complexes. It interacts with CESA7 and CESA8 which is required for a functional complex and localization in secondary cell wall deposition sites. Expressed in young plants, stems and flowers but not in leaves, roots and shoots. Amounts are increasing as stems mature. Synonyms: Protein IRREGULAR XYLEM 5, IRX5, NWS2.

**Immunogen** | Recombinant *Arabidopsis thaliana* IRX5 fragment, UniProt: [Q84JA6](#), TAIR: [At5g44030](#)

**Host** | Rabbit

**Clonality** | Polyclonal

**Purity** | Serum

**Format** | Lyophilized

**Quantity** | 50 µl

**Reconstitution** | For reconstitution add 50 µl of sterile water.

**Storage** | Store lyophilized/reconstituted at -20 °C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.

**Tested applications** | Western blot (WB)

**Related products** | [AS12 2581](#) | CesA7 (IRX3) | Cellulose synthase A catalytic subunit 7 [UDP-forming], rabbit antibody

[AS12 2580](#) | CesA8 (IRX1) | Cellulose synthase A catalytic subunit 8 [UDP-forming], rabbit antibody

[Plant protein extraction buffer](#)

[Secondary antibodies](#)

**Additional information** | This antibody is detecting both, recombinant and endogenous CesA4 (IRX5) protein.

### Application information

**Recommended dilution** | 1 : 1000 (WB)

**Expected | apparent MW** | 119.5 kDa

**Confirmed reactivity** | *Arabidopsis thaliana*, *Solanum lycopersicum*, *Solanum tuberosum*

**Predicted reactivity** | *Betula luminifera*, *Brassica napus*, *Capsella rubella*, *Eutrema salsugineum*, *Gossypium hirsutum*, *Nelumbo nucifera*, *Noccaea caerulescens*, *Vitis vinifera*

**Not reactive in** | *Populus tremula*

**Selected references** | [Otulak-Koziej](#) et al. (2018). Plant Cell Wall Dynamics in Compatible and Incompatible Potato Response to Infection Caused by Potato Virus Y (PVYNTN). *Int J Mol Sci.* 2018 Mar 15;19(3). pii: E862. doi: 10.3390/ijms19030862. [Tsuchiya](#) et al. (2015). Distribution of XTH, expansin, and secondary-wall-related CesA in floral and fruit abscission zones during fruit development in tomato (*Solanum lycopersicum*). *Front Plant Sci.* 2015 May 15;6:323. doi: 10.3389/fpls.2015.00323.

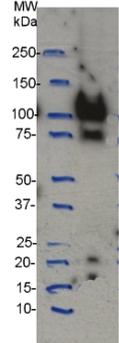
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## Application example



500 mg of Col-0 WT *Arabidopsis thaliana* stem powder extracted by boiling in 2 mL of 3% SDS loading buffer + 100 mM DTT at 95°C for 10 min. Extract was spun at max speed to remove debris and supernatant was taken as crude extract. 25 µL of this was loaded on a 4-15% gel run for 50 min, 150v. . Blots were blocked with 5 % milk for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 500 over night at 4 °C with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, AS09 602 from Agrisera) diluted to 1:5000 in for 2h at RT with agitation. The blot was washed as above and developed for 5 min with Pierce SuperSignal West Pico kit according to the manufacturer's instructions. Exposure time was 10 seconds.

Courtesy of Dr. Manoj Kumar, University of Manchester, UK

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