

# XCP1 Rabbit pAb

Catalog No.: A22853

## Basic Information

### Observed MW

41kDa

### Calculated MW

71kDa

### Category

Primary antibody

### Applications

ELISA, WB

### Cross-Reactivity

Maize

## Background

XCP1 is a xylem-specific papain-like cysteine peptidase in Arabidopsis. Results from confocal microscopy and biochemical subcellular fractionation indicated that XCP1 was localized in the vacuole. Ectopic expression of XCP1 resulted in a reduction in plant size in some lines and early leaf senescence, as indicated by early loss of leaf chlorophyll. Reduced plant size was correlated with higher levels of XCP1, as shown by immunoblot and peptidase activity gel analyses. The XCP1 prodomain exhibits exceptionally high similarity (greater than 80%) to the prodomains of papain and other papain-like enzymes isolated from papaya (*Carica papaya*) laticifers when compared with all other reported papain-like enzymes. The XCP1 and papain to perform common functions as catalysts of autolytic processing following cell death due to programmed suicide or to wounding is discussed.

## Recommended Dilutions

WB 1:100 - 1:500

## Immunogen Information

### Gene ID

100283433

### Swiss Prot

B6TIC7

### Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 157-377 of maize XCP1(NP\_001149806.1).

### Synonyms

IDP105; GRMZM2G066326; XCP1; Cysteine protease5

## Contact

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## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

Affinity purification

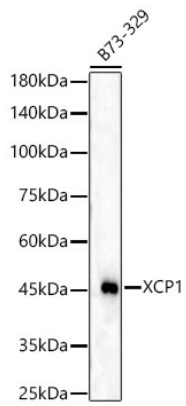
### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

## Validation Data

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Western blot analysis of lysates from B73-329 using XCP1 Rabbit pAb(A22853) at 1:400 dilution.  
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25 µg per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Enhanced Kit (RM00021).  
Exposure time: 45s.