



## SGS2 (aC-20): sc-14065

### BACKGROUND

Plants promote resistance to pathogens by either eliciting an active defense by initiating the transcription of several resistance (R) genes or by utilizing post-transcriptional gene silencing (PTGS). PTGS results in the specific degradation of transgenic mRNA following transcription, which either have a high rate of transcription or where the transgenic locus is between inverted repeats. PTGS is a phenomenon similar to that of quelling in fungi and RNA interference (RNAi) in animals. SGS2 and SGS3 (for suppressor of gene silencing) control PTGS in *Arabidopsis thaliana*, and SGS2 and SGS3 mutants display enhanced susceptibility to cucumovirus CMV. Alternatively, FLS2 is an R gene involved in the recognition of flagellin, the main protein of the bacterial flagella, and subsequently, activates the defense response in *Arabidopsis thaliana*. FLS2 contains an extracellular leucine-rich repeat (LRR) similar to other R genes, a transmembrane domain and a cytoplasmic serine/threonine kinase domain, which is required for proper binding of flagellin.

### REFERENCES

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3. Gomez-Gomez, L. and Boller, T. 2000. FLS2: an LRR receptor-like kinase involved in the perception of the bacterial elicitor flagellin in *Arabidopsis*. *Mol. Cell* 5: 1003-1111.
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5. Wianny, F. and Zernicka-Goetz, M. 2000. Specific interference with gene function by double-stranded RNA in early mouse development. *Nat. Cell Biol.* 2: 70-75.
6. Gomez-Gomez, L., Bauer, Z., and Boller, T. 2001. Both the extracellular leucine-rich repeat domain and the kinase activity of FLS2 are required for flagellin binding and signaling in *Arabidopsis*. *Plant Cell* 13: 1155-1163.

### SOURCE

SGS2 (aC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SGS2 of *Arabidopsis thaliana* origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14065 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

SGS2 (aC-20) is recommended for detection of SGS2 of *Arabidopsis thaliana* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

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

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.