

product **AS09 647**

**GSNOR | S-nitrosogluthathione reductase**

## product information

**Background** | **S-nitrosogluthathione reductase (GSNOR)** is a cytoplasm localized enzyme which plays a key role in formaldehyde detoxification and is down regulated by wounding and activated by salicylic acid (SA).  
Alternative protein names: Alcohol dehydrogenase class-3, Alcohol dehydrogenase class-III, FALDH, FDH formaldehyde dehydrogenase, alcohol dehydrogenase III, HOT5, S-(hydroxymethyl)glutathione dehydrogenase, Glutathione-dependent formaldehyde dehydrogenase, GSH-FDH

**Immunogen** | Overexpressed, full length GSNOR derived from *Arabidopsis thaliana* [Q96533](#), [At5g43940](#)

**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** | Collection of antibodies to other proteins involved in stress response

**Additional information** | Antibody is easily detecting GSNOR in a load per well of 5 µg of total *Arabidopsis* cell extract

## Application information

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

**Expected | apparent MW** | 40.7 | 40.7 kDa

**Confirmed reactivity** | *Arabidopsis thaliana*, *Helianthus annuus*

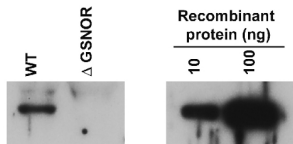
**Predicted reactivity** | *Brassica napus*, *Oryza sativa*, *Pisum sativum*, *Populus balsamifera*, *Ricinus communis*, *Solanum tuberosum*, *Zea mays*

**Not reactive in** | No confirmed exceptions from predicted reactivity are currently known.

**Additional information** |

**Selected references** | [Jain et al. \(2018\)](#). S-nitrosylation/denitrosylation as a regulatory mechanism of salt stress sensing in sunflower seedlings. *Physiol Plant*. 2018 Jan;162(1):49-72. doi: 10.1111/ppl.12641.  
[Kovacs et al. \(2016\)](#). ROS-Mediated Inhibition of S-nitrosogluthathione Reductase Contributes to the Activation of Anti-oxidative Mechanisms. *Front. Plant Sci.*, 10 November 2016  
[Zhou et al. \(2016\)](#). Arabidopsis CaM1 and CaM4 Promote Nitric Oxide Production and Salt Resistance by Inhibiting S-Nitrosogluthathione Reductase via Direct Binding. *PLoS Genet*. 2016 Sep 29;12(9):e1006255. doi: 10.1371/journal.pgen.1006255. eCollection 2016.  
[Lee et al. \(2008\)](#). Modulation of nitrosative stress by S-nitrosogluthathione reductase is critical for thermotolerance and plant growth in Arabidopsis. *The Plant Cell* 20: 786-802.

## Application example



**2  $\mu$ g of total protein** from (1) *Arabidopsis thaliana* WT and GSNOR null mutant were separated on 7.5%SDS-**PAGE** and blotted 1h to **nitrocellulose** (Biorad). Blots were incubated anti-GSNOR antibodies at a dilution of 1: 1 000 for 1h at room temperature with agitation and secondary HRP-conjugated antibody (1: 10 000).