

Anti- TGG2 / Myrosinase 2 antibody, rabbit polyclonal

81-111 200 µg

Shipping and Storage: Shipped at 4°C or -20°C and store at -20°C. Do not freeze.

Immunogen: A synthetic peptide, AHALDPSPPEKLT, corresponding to TGG2 protein (363-376) of *A. thaliana*, conjugated with bovine serum albumin. This region of TGG2 has little homology with the corresponding region of TGG1.

Form: Protein A/G purified IgG, 2 mg/ml in PBS⁻ with 50% glycerol. Filter sterilized. No preservative or carrier protein added.

Validation of specificity: Specific reactivity has been validated by western blot showing that the TGG2 specific band is absent in *tgg2-1* mutant leaf extract (Ref.1)

Reactivity: React with TGG2 of arabidopsis but does not react with TGG1 of arabidopsis.

Applications:

1. Western blotting (1/1,000)
2. Immuno-electron microscopy (assay dependent)
3. ELISA (Assay dependent)

Background: May degrade glucosinolates (glucose residue linked by a thioglucoside bound to an amino acid derivative) to glucose, sulfate and any of the products: thiocyanates, isothiocyanates, nitriles, epithionitriles or oxazolidine-2-thiones. These toxic degradation products can deter insect herbivores. Seems to function in abscisic acid (ABA) and methyl jasmonate (MeJA) signaling in guard cells. Functionally redundant with TGG1.

Subcellular location: Vacuole

Data Link: UniProtKB [Q9C5C2](#) (Myrosinase 2, *A. thaliana*)

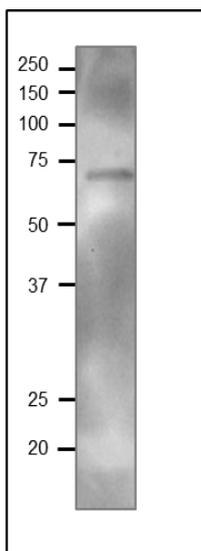


Fig.1 Western blot of TGG2 in crude extract of Arabidopsis leaves.

Blotting in wet system overnight. The anti-TGG2 antibody was used at 1/1,000 dilution.

Molecular mass calculated from the amino acid sequence is 63 kDa, Signal peptide of 28 amino acids is removed and three glycosylation sites have been identified in the mature form.

References: This antibody has been used in the following publications.

1. Ueda T. et al. AtVAM3 is required for normal specification of idioblasts, myrosin cells. [Plant Cell Physiol.](#) 2006 Jan;47(1):164-75.5. PMID:[16306062](#) **WB, Immunoelectron microscopy** (Arabidopsis)
2. Shirakawa M. et al. Arabidopsis Qa-SNARE SYP2 proteins localized to different subcellular regions function redundantly in vacuolar protein sorting and plant development. *The Plant Journal* (2010) 64, 924–935. PMID:[21143674](#) **WB** (Arabidopsis)
3. Liebming E. et al. Myrosinases TGG1 and TGG2 from *Arabidopsis thaliana* contain exclusively oligomannosidic N-glycans. [Phytochemistry.](#) 2012 Dec; 84(21): 24–30. **WB** (Arabidopsis)
4. Agee A E. et al. MODIFIED VACUOLE PHENOTYPE1 Is an Arabidopsis Myrosinase-Associated Protein Involved in Endomembrane Protein Trafficking. [Plant Physiol.](#) 2010 Jan;152(1):120-32. PMID: [19880612](#) **WB** (Arabidopsis)

Related Products: 81-010 anti-TGG1 / Myrosinase 1 antibody, rabbit polyclonal