SUPPLEMENTAL DATA

FIGURE S1 **Purification of CGT from tomato seedlings**. SlCGT was purified from 14-day-old tomato seedlings using a combination of chromatographic separation steps. Shown is a Coomassie Blue-stained gel containing protein from various stages of the enzyme purification: *1*, crude protein, desalted on Sephadex G-25; *2*, Q-Sepharose; *3*, Phenylsepharose; *4*, Superdex G-75; *5*, Mono-Q; *M*, molecular weight standards.

FIGURE S2. **SlCGT is encoded by a single-copy gene.** Southern blot analysis of tomato genomic DNA, probed with the full length *SlCGT* cDNA. DNA (5 µg) was isolated from tomato seedlings and digested with the restriction enzymes *Eco*RI (**1**) and *Nco*I (**2**). Hybridization with the full length cDNA resulted in one and two bands in *Eco*RI- and *Nco*I-digested DNA, respectively. As a restriction site for *Nco*I is located in the cDNA sequence of *SlCGT*, the two visible bands derive from a single gene.

FIGURE S3. **The isolated cDNA encodes an active CGT.** Traces of HPLC analyses of CGT assays run with protein extracts of *Nicotiana benthamiana* leaves transformed with *SlCGT* cDNA under control of the promoter of the *Rubisco* gene from *Asteraceous chrysanthemum*. Controls were performed using transformations with the empty vector pBINPLUS and revealed no CGT activity.

FIGURE S4. **Specificity of anti-SlCGT antibody tested by Western blot analysis.** Protein extract from 7-day-old tomato seedlings and selected fractions from the purification of SlCGT (7) were separated by SDS-PAGE and stained with Coomassie blue (*A*) or transferred to nitrocellulose and immunostained using the anti-SlCGT antibody followed by a goat anti-rabbit IgG antibody coupled to alkaline phosphatase (*B*). Immuno decorated SlCGT was visualized by staining with *p*-nitroblue tetrazoline chloride (NBT) and 5-bromo-4-chloro-3-indolylphosphate (BCIP). Note the detection of a single band in all lanes corresponding to the protein fractions from SlCGT purification visible in (*A*). *1*, crude plant extract; *2*, first purification using DEAE column; *3*, purification by FPLC; *4*, SlCGT eluted from SDS gel; *M*, molecular weight standards.

FIGURE S5. **Colorimetric analysis of SlCGT hydrolytic activity.** *A*, SlCGT activity was evaluated by a colorimetric assay. Lipase activity was estimated colorimetrically by measuring the liberation of p-nitrophenol from p-nitrophenyl laurate. *Candida rugosa* lipase activity is given as a control. *B*, Colour change during enzyme assay with the substrate p-nitrophenyl laurate. Yellow colour indicates the liberation of p-nitrophenol.

TABLE S1. **Summary of PCR primer sequences.**

TABLE S2. **Inhibition of SlCGT enzyme activity by the serine inhibitor phenylmethylsulfonylfluoride (PMSF).**