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## Abstract

Transgenic tobacco seedlings that overexpress *Nt107*, a cDNA that encodes an enzyme with both glutathione S-transferase (GST) and glutathione peroxidase (GPX) activity were reported to show enhanced tolerance to a variety of stresses that include low temperature, herbicides or salinity. To help elucidate the possible mechanisms that mediate the stress tolerance of these transgenic seedlings, we are using immunocytochemistry to determine the localization of the *Nt107* gene product, and also to quantify its expression in tobacco transgenic plants. Cotyledon and axis of the *Nt107* expressing and control plants were fixed, embedded in paraffin, and sectioned. Antiserum against the recombinant *Nt107* gene product was raised in rabbits and used to label the sectioned tissues. The presence of the *Nt107* antibody was visualized using a secondary antibody coupled to peroxidase. *Nt107* protein appears to be ubiquitously expressed in parenchyma cells of tobacco seedlings. High levels were seen in the cytosol, chloroplast, and nuclei.