

**EXPRESSION OF A UBIQUITIN-CONJUGATING
ENZYME GENE IN COTTON ROOT**

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A cDNA clone (*GhUBC1*) encoding a ubiquitin-conjugated enzyme (UBC) has been isolated from a cotton (*Gossypium hirsutum* L. Cultivar St213) root cDNA library. *GhUBC1* encodes a polypeptide of 148 amino acids with a calculated molecular weight of 15 kDa. The *GhUBC1* protein is homologous to UBCs found in *Arabidopsis thaliana* (UBC8), *Oryza sativa* (UBC), and *Saccharomyces cerevisiae* (UBC4) and shares amino acid identities of 96%, 90%, and 75%, respectively. The amino acid sequence comparison data suggests that the cotton *GhUBC1* is probably involved in the selective degradation of abnormal and short-lived proteins. Northern blot analysis revealed that the *GhUBC1* gene is expressed in roots, flowers, and fibers, but with the highest level in the root tissue. Southern genomic blot indicated that two copies of the *GhUBC1* gene are present in cotton genome.