

**Title** Prickly pear polygalacturonase gene: cDNA cloning and transcript accumulation during ethylene treatment, cold storage and wounding

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#### **Abstract**

Polygalacturonase (PG; EC 3.2.1.6.9) has been the most widely studied cell wall hydrolase in fruit ripening. Degenerate oligonucleotides corresponding to conserved regions from reported sequences were used as primers for RT-PCR to amplify mRNA extracted from middle ripe fruit. Cloning and characterization of a cDNA *OsPG* showed a 282 bp product with a predicted sequence of 94 amino acids. The peptide exhibited a high identity with previously reported fruit PGs. Northern blot analysis of the messenger showed a 1.7 kb transcript induced during prickly pear ripening. It was found by Southern blot analysis that there is one copy of this gene. The *OsPG* mRNA expression is sensitive to ethylene, cold storage and wounding.