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Molecular cloning of a cDNA fragment encoding 3-hydroxy-3-methylglutaryl CoA reductase in *kantkari* (*Solanum xanthocarpum*)

Molecular cloning...

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A cDNA fragment encoding 3-hydroxy-3-methylglutaryl coenzyme A reductase (HMGR) was cloned from kantkari (*Solanum xanthocarpum*), a medicinal herb. cDNA was synthesized by reverse transcription polymerase chain reaction using specifically designed primers, with total RNA isolated from tender leaves. The 600bp amplicon obtained was cloned in pGEMT vector and sequenced, which revealed the presence of two open reading frames sharing homology with HMGR of other plant species. Sequence comparison of HMGR from eight different plant genera revealed that solanaceous plants belonged to a single cluster. Northern blotting followed by hybridization of total RNA using homologous probe confirmed the presence of corresponding mRNA. The full length gene could be cloned and utilized for imparting insect resistance to cultivated plants.

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