

B-71 Expression of rubber elongation factor protein gene from *Hevea brasiliensis*

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Rubber Elongation Factor (REF) protein is one of the most abundant proteins associated with the membrane of rubber particles. This 14.5 kD polypeptide is involved in the polymerization of the isoprene monomer in the formation of natural rubber, *cis* polyisoprene. This investigation was undertaken to study the regulation of expression of the REF gene in the laticifers of the rubber tree.

Total RNA from leaves and latices of different *Hevea* cultivars were isolated. The recovery of total RNA from *Hevea* leaves was 1000-1400 μ g/g tissue. A method was developed to isolate RNA from *Hevea* latex which yielded 10 - 30 μ g/ml of freshly tapped latex.

Dot blot analysis showed that the REF gene expression in laticifers is approximately 100-fold higher than in the leaves. RNA hybridization experiments showed differences in mRNA abundance in the latices of the *Hevea* cultivars tested.