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Sui1 Translation Initiation Factor of *Bombyx mori*

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Objectives

Sui1 (suppressors of initiator codon mutations) is a component of the translation initiation complex which plays an important role in ribosomal recognition of the initiator codon. Here we report the complete cDNA sequence of *Bmobyx mori* analogy of the *Anopheles gambiae sui1* translation initiation factor gene and expressions of each organ.

Materials and Methods

- Animal : Bombyx mori embryo
- ABI PRISM 377 autosequencer (Perkin Elmer, USA)
- Norther Blotting
- RT-PCR (Stratagene)

Results and Discussion

The complete cDNA sequence of the *Bombyx mori sui1* translation initiation factor gene was obtained by assembling over 1466 expressed sequence tags (ESTs) for genes obtained from embryo cDNA libraries. The amino acid sequence of the deduced protein was 92% identical (102/110 aa) to the discovered translation initiation factor *sui1* of *Anopheles gambiae,* suggesting that the two proteins are homologs and have similar functions. Database searches also revealed strong similarity to other sequences, including the deduced gene products of cDNAs from organisms as diverse as nematoda, yeast, humans and plants. Here, we report a novel suppressors of initiator, termed *Bsui1*, from the silkworm, *Bombyx mori.* This gene encodes 111 anino acids. Northern analysis indicates quasi-constitutive expression of *Bsui1* throughout fertilization, mesoderm formation, blastokinesis of *Bombyx mori* early development. *Bsui* is ubiquitously expressed in the various tissues throughout the final larval, spinning, pupa, adult stage.

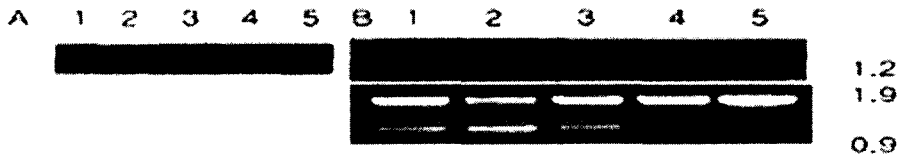

Fig 1. Northern blot hybridization showing the pattern of expression *sui1* gene. A : c DNA microarray analysis B ; Northern blot hybridization.

References

Casitlho-Valacicius B., Yoon H., Donahue TF., 1990, Genetic characterization of the *Saccharomyces cerevisiae* translational initiation suppressors *sui1*, *sui2* and *sui3* and their effects on HIS4 expression, Genetic 124(3), 483-495