Mapping of the Mouse Actin Capping Protein Beta Subunit Gene

ABSTRACT

The CPβ gene (Cappb1) mapped to Chromosome 4 between Cdc42 and D4Mit312. Three mouse mutations, snubnose, curly tail, and cribriform degeneration, map in the vicinity of the β gene.

INTRODUCTION

Background Capping protein (CP) is a ubiquitous actin binding protein that regulates actin assembly and cell motility. CP is a heterodimer composed of α and β subunits, each approximately 30 kD. Lower organisms, including Saccharomyces cerevisiae, Caenorhabditis elegans and Drosophila melanogaster, have one gene and one isoform for each of the CPα and β subunits. Vertebrates contain three α subunit isoforms encoded by three different genes and three β subunit isoforms (β1, β2, β3) produced from one gene by alternative splicing.

CONCLUSION

Conclusions The CPβ gene (Cappb1) mapped to Chromosome 4 between Cdc42 and D4Mit312. Three mouse mutations, snubnose, curly tail, and cribriform degeneration, map in the vicinity of the β gene.