

Assignment<sup>1</sup> of *Zfp100* to murine chromosome 4  
band D3/E1 with radiation hybrid mapping

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<sup>1</sup> To our knowledge this is the first time this gene has been mapped.

## Rationale and significance

Zinc finger genes have been shown to be involved in many different functions of the organism, such as development, differentiation (Krempler et al., 1999) and cancer (Stein et al., 1999). The human zinc finger gene ZNF151, has high homology to a murine POZ/zinc finger transcription factor gene, *Zfp100*, which is expressed in most tissues. Peukert et al. (1997) found that ZNF151 has a potent growth reducing effect on HeLa cells. Although the function of *Zfp100* remains to be elucidated, it is tempting to speculate that *Zfp100* codes for a protein that may play an important role in development. Here we report the assignment of the murine *Zfp100* gene to chromosome 4 by radiation hybrid mapping

## Materials and methods

For radiation hybrid mapping PCR was applied to the Whole Genome Radiation Hybrid (WGRH) panel Goodfellow T31 comprising 100 genomic DNA's from mouse-hamster hybrid cell lines and two control DNA's (Research Genetics, Huntsville USA). A 170-bp murine specific genomic fragment was obtained using the *Zfp100* RH primer pair and the result was confirmed by sequencing. PCR amplification of the radiation hybrid panel gave the following data vector: 0100111100 0001110010 0000100001 0010000100 0000000000 0000000100 0001000100 1000000110 0100001000 0000100001, where presence is represented with 1 and absence with 0. The vector was statistically analysed (<http://www.jax.org/resources/documents/cmdata/rhmap/rhsubmit.html>).

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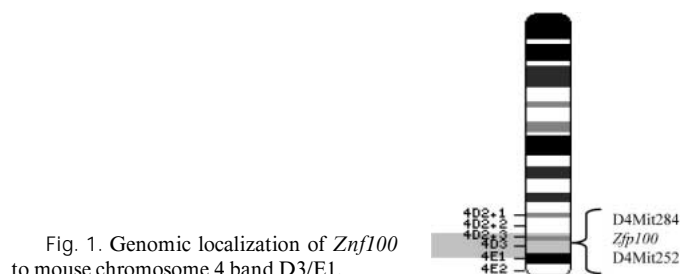


Fig. 1. Genomic localization of *Zfp100* to mouse chromosome 4 band D3/E1.

Primer names	Primer sequences
<i>Zfp100</i> RHF	5' GCTGGAGAGCTCGTCTTCCGTC 3'
<i>Zfp100</i> RHR	5' GGGGCAGGAGCACCTTCTGA 3'

*Amplicon*: 170 bp

*Conditions*: 94 °C for 5 min, 94 °C for 20 s, 58 °C for 20 s, 72 °C for 20 s and 72 °C for 5 min, 40 rounds of amplification

## Results

With a LOD score of 19, the result indicates that *Zfp100* is localized between markers, D4Mit284 and D4Mit252, which map to murine chromosome 4 band D3/E1 (Fig. 1). This data is in concordance with the finding that the human ZNF151 is localized at chromosome 1p36, a region homologous to mouse chr 4 D3/E1. D4Mit284 (3.2 cR proximal) and D4Mit252 (6.0 cR distal) are positioned at 69.00 cM on chromosome 4 (Mapviewer, <http://www.ncbi.nlm.nih.gov>).

## References

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