Strain polymorphism and tentative mapping of mouse ornithine decarboxylase

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SOURCE/DESCRIPTION
The plasmid pOD48 contains a 1.6 kb of a ornithine decarboxylase cDNA[1].
POLYMORPHISM
Constant Eco RI bands were found at 3.6, 4.4, 5.5, 6.9, 8.5, 11.5, 13.5 and 19 kb. Variant bands were found at 4.7 and 6.2 kb.
FREQUENCY
The 4.7 band is present in BALB/c, not in C57BL/6, DBA/2 and C3Hf, and segregate in CxB recombinant inbred (RI) strains. The 6.2 kb band is present in DBA/2 and C3Hf; these two strains can be distinct by the 4.4 band which is present as a doublet in C3Hf. Hind III digestion (not shown) revealed a 12.5 kb band which is present only in DBA/2 DNA.
NOT POLYMORPHIC FOR -----
CHROMOSOMAL LOCALIZATION
Not reported. CxB recombinant inbred strains have been used to follow the inheritance of the BALB/c 4.7 kb band. The presence of this band only in CxBG and CxBJ strains delineates the strain distribution pattern BBCBBCB identical for those of VH 3660[2] (not shown) and of Igh-c gene which has been localized in the distal portion of chromosome 12 (P. D'Eustachio, personal communication).
MENDELIAN INHERITANCE
Segregation of the 4.7 kb BALB/c band were followed among the CxB RI strains.
PROBE AVAILABITY
The probe was obtained from Dr. P. Coffino (University of California, San Francisco).
REFERENCES
1) McConlogue L. et al. Proc. Natl. Acad. Sci. USA (1984) 81: 540-544.
2) Brodeur P.M. and Riblet R. Eur. J. Immunol. (1984) 14: 922-930.
ACKNOWLEDGEMENTS
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