Taq I RFLP linked to the human ets-1 gene

J.M.R.Aparicio, A.Wakisaka, A.Takada, N.Matsuura¹ and T.Yoshiki

Department of Pathology and ¹Department of Pediatrics, Hokkaido University School of Medicine, Sapporo, Japan

SOURCE AND DESCRIPTION OF CLONE: A 5.4Kb unique Eco RI fragment cloned into PKH47 for human c-ets(1).

POLYMORPHISM: Taq I identifies a two allele system with one band at 0.6Kb (A1) and one band at 0.4Kb (A2), and two invariant bands at 2.2 Kb and 2.0 Kb.

FREQUENCY: Studied 24 unrelated Japanese.
0.6Kb allele (A1): 0.08
0.4Kb allele (A2): 0.92

NOT POLYMORPHIC FOR: Bgl I, Hae II, Eco RI, Hind III, Msp I, Hae III, Hinf I, Hinc II, Sty I, Pst I, Pvu II, Bgl II and Bam HI, among family studies.

CHROMOSOMAL LOCALISATION: c-ets-1 gene localised to 11q23-q24 region by in situ hybridization (1)

MENDELIAN INHERITANCE: co-dominant segregation observed in three families (15 individuals).

PROBE AVAILABILITY: Available from ATCC (# 57394).

OTHER COMMENTS: Since Taq I/c-ets has been found not polymorphic (in Caucasians)(3), this is the first time that polymorphism is reported (in Japanese). Moreover, A1 (0.18) and A2 (0.82) alleles were also observed in 57 IDDM affected Japanese. Within this study Sst I showed 2.4/2.2Kb polymorphic fragments which differ from the 4.0/3.1Kb(3) and 11.5/9.6Kb reported fragments. Finally, Ava II-2.5/2.1Kb and Xba I-3.4/2.1Kb fragments were also observed.

REFERENCES: 1. de Taisne, C., et al.(1984)Nature 310:581-583.
2. Kerckaert,J.P., et al.(1987)Nucl.Acids.Res.15:5905.
3. Sacchi,N., et al.(1986)Nucl.Acids.Res.14:9545.

ACKNOWLEDGEMENTS: We thanks to Mr.K.Masuda and Ms. M.Keira for their excellent technical assistance.This work was supported in part by the Research Grant for the Intractable Diseases from the Ministry of Health and Wealfare of Japan and by Grant-in-aid for scientific research (No. 62570210) from the Ministry of Education, Science and Culture, Japan.