An MPO cDNA clone identifies an RFLP with PstI

T.Miki^{1,2}, S.C.Weil^{4,5}, G.L.Rosner^{4,5}, M.S.Reid^{4,5} and K.K.Kidd^{1,2,3}

¹Department of Human Genetics, ²Biology and ³Psychiatry, Yale University School of Medicine, New Haven, CT 06510, ⁴Department of Pathology and ⁵Medicine, Northwestern University Medical Center, Chicago, IL 60611, USA

SOURCE/DESCRIPTION: A myeloperoxidase (MPO) cDNA clone (pHMP7: 270 base pair insert in the vector pGEM-1) was isolated from a library created from human promyelocytic (HL-60) cell mRNA (1).

POLYMORPHISM: PstI (CTGCA/G) (New England Biolabs) identifies a simple two-allele polymorphism with bands at either 2.2 kb (A1) or 2.0 kb (A2). There are three constant bands at 2.8 kb, 0.95 kb and 0.6 kb.

FREQUENCY: Studied 51 unrelated European Caucasians:

2.2 kb allele (A1): 0.82 ± 0.04
2.0 kb allele (A2): 0.18 ± 0.04

NOT POLYMORPHIC FOR: BanII, BamHI, BglI, BglII, BstEII, DraI, EcoRI, EcoRV, HindIII, HincII, KpnI, PvuII, RsaI, SacI, TaqI, and XmnI with DNA from 11 unrelated individuals.

CHROMOSOMAL LOCALISATION: 17q11-q21 (1) or 17q21-q24 (2,3). Preliminary family data show evidence of linkage to several markers in proximal 17q, with MPO closest to the Growth Hormone cluster at 17q22-q24.

MENDELIAN INHERITANCE: Autosomal codominant segregation observed in four large reference pedigrees with several informative matings.

PROBE AVAILABILITY: Available for collaboration from Dr. Susan C. Weil.

OTHER COMMENTS: RFLP analysis is possible under normal stringency conditions.

REFERENCES:

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