A new DNA marker, D3S743, identifies a MspI polymorphism on chromosome 3p

F.Latif, K.Tory¹, L.Geil¹, B.Zbar and M.I.Lerman*

Laboratory of Immunobiology, National Cancer Institute and ¹Biological Carcinogenesis and Development Program, Program Resources Inc./DynCorp, Frederick Cancer Research and Development Center, Frederick, MD 21701, USA

Source/Description: λ LIB25-75" (D3S743) is a 2.4 kb EcoRI insert isolated from a Charon 21A human chromosome 3 library (1).

Polymorphism: MspI digestion of genomic DNA and hybridization with the probe detects a two-allele polymorphism: 4.3 kb (M1) and 3.3 kb (M2).

Frequency: Estimated from 120 unrelated Caucasians.

M1: 0.38

M2: 0.62

Frequency of Heterozygosity: 0.47. Observed frequency of heterozygosity = 0.55.

Not Polymorphic For: BamHI, BglII, DraI, EcoRI, HindIII, HinfI, PvuII and TaqI.

Chromosomal Localization: Using a somatic cell hybrid panel (2) which was based on linkage groups anchored to physically localized markers, the probe was assigned to the short arm of chromosome 3 between the centromere and 3p14.

Mendelian Inheritance: Mendelian inheritance has been demonstrated in three generation CEPH reference pedigrees.

Probe Availability: Available for collaboration.

Acknowledgements: This project has been funded at least in part with Federal funds from the Department of Health and Human Services under contract number N01-C0-74102.

References: 1) American Type Culture Collection No. 57717, National Lab ID Code LA03NS01. 2) Lerman, M., Latif, F., Glenn, G. *et al.* (1991) Isolation and regional localization of a large collection (2,000) of single copy DNA fragments on human chromosome 3 for mapping and cloning tumor suppressor genes. *Human Genetics* **86**, 567–577.

A new DNA marker, D3S640, identifies a DraI, HindIII and TaqI polymorphisms on chromosome 3p

F.Latif, K.Tory¹, L.Geil¹, B.Zbar and M.I.Lerman*

Laboratory of Immunobiology, National Cancer Institute and ¹Biological Carcinogenesis and Development Program, Program Resources Inc./DynCorp, Frederick Cancer Research and Development Center, Frederick, MD 21701, USA

Source/Description: λ LIB35-40 (D3S640) is a 1.5 kb EcoRI insert isolated from a Charon 21A human chromosome 3 library (1).

Polymorphism: DraI, HindIII and TaqI digestion of genomic DNA and hybridization with the probe detects a two-allele polymorphism for each enzyme: 2.5 kb (D1) and 2.0 kb (D2); 9.0 kb (H1) and 4.3 kb (H2); 4.0 kb (T1) and 3.5 kb (T2).

Frequency: Estimated from 120 unrelated Caucasians.

M1: 0.94 H1: 0.17 T1: 0.27

M2: 0.06 H2: 0.83 T2: 0.73

Frequency of Heterozygosity: 0.11 for DraI, 0.28 for HindIII and 0.39 for TaqI. Observed frequency of heterozygosity = 0.095, 0.30 and 0.41, respectively.

Not Polymorphic For: BamHI, BglII, EcoRI, HinfI, MspI and PvuII.

Chromosomal Localization: Using a somatic cell hybrid panel (2) which was based on linkage groups anchored to physically localized markers, the probe was assigned to the short arm of chromosome 3 between the centromere and 3p14.

Mendelian Inheritance: Mendelian inheritance has been demonstrated in three generation CEPH reference pedigrees.

Probe Availability: Available for collaboration.

Acknowledgements: This project has been funded at least in part with Federal funds from the Department of Health and Human Services under contract number N01-C0-74102.

References: 1) American Type Culture Collection No. 57717, National Lab ID Code LA03NS02. 2) Lerman, M., Latif, F., Glenn, G. *et al.* (1991) Isolation and regional localization of a large collection (2,000) of single copy DNA fragments on human chromosome 3 for mapping and cloning tumor suppressor genes. *Human Genetics* **86**, 567–577.

*To whom correspondence should be addressed at Laboratory of Immunobiology, Frederick Cancer Research and Development Center, NCI-NIH, Ft Detrick, Building 560, 12-71, Frederick, MD 21701, USA

*To whom correspondence should be addressed at Laboratory of Immunobiology, Frederick Cancer Research and Development Center, NCI-NIH, Ft Detrick, Building 560, Room 12-71, Frederick, MD 21701, USA