A biallelic DNA polymorphism of the human beta-2-adrenergic receptor detected by Ban I-Adrbr-2

K.-U. Lentes, W.H. Berrettini², M.R. Hoehe¹, F.-Z. Chung and E.S. Gershon¹

Section of Receptor Biochemistry and Molecular Biology, Laboratory of Molecular and Cellular Neurobiology, NINCDS, NIH and ¹Section of Clinical Genetics, NIMH, ADAMHA, Bethesda, MD 20892, USA

SOURCE/DESCRIPTION:
A 2.6 kb human genomic DNA fragment (Pvu II) of the beta-2-adrenergic receptor containing the whole coding region plus 1000 bp of the 5'-flanking and 400 bp of the 3'-untranslated region was isolated from the human genomic clone LCV-517 (20 kb insert) (1) and subcloned into the Sma I site of the expression vector pMSG (Pharmacia).

POLYMORPHISM:
Hybridization of human genomic DNA digested with Ban I identifies a two allele polymorphism with bands at 3.4 kb (A) and 3.7 kb (B).

FREQUENCY:
20 unrelated Caucasians (North America) were tested.
A allele: 0.75
B allele: 0.25

NOT POLYMORPHIC FOR:

CHROMOSOMAL LOCALIZATION:
The human beta-2-adrenergic receptor gene has been assigned to chromosome 5q31-32 (2).

MENDELIAN INHERITANCE:
Codominant segregation in 3 families with 2 generations.

OTHER COMMENTS:
High stringency wash of the blots in 0.1XSSC/0.1%SDS at 65°C shows no significant background.

PROBE AVAILABILITY:
Available on request from K.-U. Lentes.
Present address: Institut für Humangenetik der Universität Bonn, Wilhelmstrasse 31, D-5300 Bonn 1, FRG.

REFERENCES:
(1) F.-Z. Chung et al., 1987, FEBS Lett. 211, 200-206.
(2) B.K. Kobilka et al., 1987, PNAS 84, 46-50.

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