

Aus dem Institut für Humangenetik der Justus-Liebig-Universität Gießen

Molecular Analysis of the Autosomal Dominant Spastic Paraplegia Type IV (SPG4)

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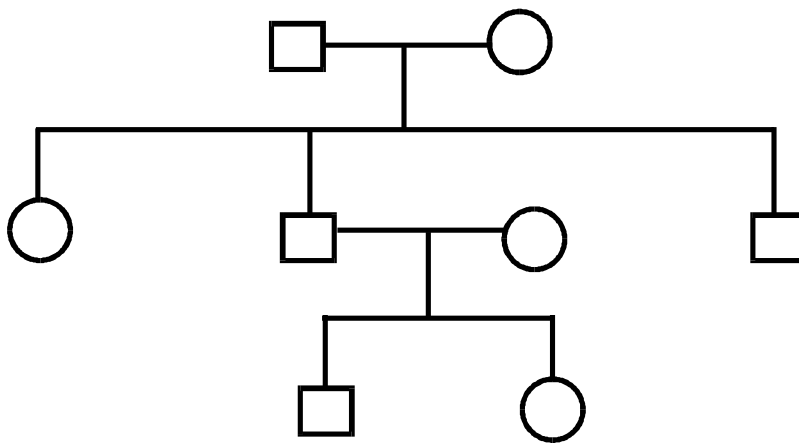
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Dedication

For Family Lau



Abbreviation

aa	amino acids
AD	autosomal dominant
Ala	alanine
Amp	ampicillin
APS	ammoniumpersulfate
AR	autosomal recessive
Arg	arginine
Asn	asparagine
Asp	aspartic acid
ATP	adenosinetriphosphate
BAC	bacterial artificial chromosome
bp	base pair
BSA	bovine serum albumin
cDNA	complementary DNA
Ci	Curie
cM	centimorgan
CNS	central nervous system
Cys	cysteine
°C	degree Celsius
Da	dalton
dATP	deoxyadenosintriphosphate
dCTP	deoxycytidintriphosphate
dGTP	deoxyguanosintriphosphate
dTTP	deoxythymidintriphosphate
ddATP	dideoxyadeosintriphosphate
ddCTP	dideoxycytidintriphosphate
ddGTP	dideoxythymidintriphosphate
ddTTP	dideoxythymidintriphosphate
dH ₂ O	distilled water
DMSO	dimethylsulfoxide
DNA	deoxyribonucleic acids
DTT	dithiothreitol
<i>E.coli</i>	<i>Escherichia coli</i>
EDTA	ethylenediaminetetraacetic acid
EST	expressed sequence tag
EtBr	ethidium bromide
EtOH	ethanol
g	gram
Gln	glutamine
Glu	glutamic acid
Gly	glycine
<i>et al</i>	et altera
His	histidine
hr	hour
HSP	hereditary spastic paraplegia
Ile	isoleucine
IPTG	isopropyl-β-D-thiogalactoside

kb	kilobase
kDa	kilodalton
KOAc	potassium acetate
<i>l</i>	liter
<i>lac Z</i>	the symbol of β -galactosidase gene
LB	Luria-Bertani
Leu	leucine
LMP	low melting point
Lys	lysine
M	molar
Mb	megabase
Met	methionine
min	minute
ml	milliliter
mM	millimolar
μ	micro
nm	nanometer
NaOAc	sodium acetate
ng	nanogram
OD	optical density
ORF	open reading frame
ori	origin of replication
p	pico
PAC	P1-derived artificial chromosome
PAGE	polyacrylamide gel electrophoresis
PBS	phosphate buffered saline
PCR	polymerase chain reaction
pH	pH value
PIC	polymorphism information content
Phe	phenylalanine
PMSF	phenylmethylsulfonylfluoride
Pro	proline
%(v/v)	percent of volume
%(w/v)	percent of weight
RNA	ribonucleic acids
RNase	ribonuclease
rpm	rotations per minute
RT-PCR	reverse transcriptase PCR
sec	second
SDS	sodium dodecylsulfate
Ser	serine
SPG	spastic paraplegia
STR	short tandem repeat
STS	sequence tagged site
TAE	Tris-Acetate-EDTA
TBE	Tris-Borate-EDTA
TE	Tris-EDTA
TEMED	N,N,N',N',-tetramethylenediamine
Thr	threonine

Tris	tris(hydroxymethyl)aminomethane
Trp	tryptophan
Tyr	tyrosine
U	units
μl	microliter
UV	ultraviolet
V	voltage
Val	valine
vs.	<i>versus</i>
W	watt
YAC	yeast artificial chromosome

Contents

1 Introduction

1.1 Pure Hereditary Spastic Paraplegia (Pure HSP)	1
1.1.1 Clinical Features of Pure HSP	1
1.1.2 Pathology	3
1.2 Complicated Hereditary Spastic Paraplegia (Complicated HSP)	3
1.3 Molecular Genetics of HSP	4
1.3.1 X-linked HSP	4
1.3.2 Autosomal Recessive HSP (AR-HSP)	6
1.3.3 Autosomal Dominant HSP (AD-HSP)	8
1.4 The Purpose of This Dissertation	12

2 Materials

2.1 Chemicals	14
2.2 Media	15
2.3 Solutions and Buffers	16
2.4 Dideoxyribonucleic Acids	19
2.5 Nucleotides	19
2.6 Radioactive Labeled Substances	19
2.7 Cloning Vectors	19
2.8 Bacterial Strains	20
2.9 DNA Length Standards	20
2.10 Enzymes	20
2.11 Kits	21

2.12 Human Genomic Libraries	21
2.13 Patients	23
3 Methods	
3.1 Isolation of DNA	
3.1.1 Isolation of Human Genomic DNA from Peripheral Blood	24
3.1.2 Isolation of Plasmid and Cosmid DNA	24
3.1.3 Isolation of PAC and BAC DNA	24
3.1.4 Isolation of YAC DNA	24
3.1.5 Isolation of DNA from Agarose Gel	25
3.1.6 Isolation of PCR Products	25
3.2 DNA Quantitation	25
3.3 DNA Gel Electrophoresis	
3.3.1 Agarose gel Electrophoresis	26
3.3.2 Pulsed Field Gel Electrophoresis	26
3.3.3 Denaturing Acrylamide Gel Electrophoresis	28
3.3.4 Single-Stranded Conformation Polymorphism Gel Electrophoresis	28
3.4 Enzymatic Manipulation of DNA	
3.4.1 Digestion of DNA with Restriction Endonucleases	29
3.4.2 Dephosphorylation of DNA with Calf Intestine Phosphatase	30
3.4.3 Repairing 5' Overhanging Ends to Blunt Ends with Klenow Fragment	30
3.4.4 Ligation of DNA with T4 DNA Ligase	30
3.5 Transformation of Plasmid DNA into <i>E.coli</i> Cells	
3.5.1 Preparation of Competent Cells	31
3.5.2 Transformation	31
3.6 Southern Blotting	31

3.7 Hybridization	
3.7.1 DNA Probe Preparation	32
3.7.2 Prehybridization and Hybridization	32
3.8 Polymerase Chain Reaction (PCR)	33
3.9 Reverse Transcriptional Polymerase Chain Reaction (RT-PCR)	
3.9.1 Total RNA Isolation from Human Blood	33
3.9.2 First Strand cDNA Synthesis and RT-PCR	34
3.10 DNA Sequencing	
3.10.1 Sequencing Plasmid DNA with Thermo Sequenase Fluorescent Labeled Primer Cycle Sequencing Kit	34
3.10.2 Sequencing PCR product with Thermo Sequenase Radiolabeled Terminator Cycle Sequencing Kit	35
3.10.3 Sequencing DNA with T7 Sequenase Kit	37
3.11 Cosmid Library Construction	
3.11.1 Preparation of Host Cells	38
3.11.2 Preparation of a -80°C Glycerol Stock	38
3.11.3 Preparation of Vector DANN	38
3.11.4 Partial Digestion of YAC DNA.	38
3.11.5 Ligation	39
3.11.6 Packaging	39
3.11.7 Titering of the Cosmid Packing Reaction	39
3.11.8 Screening the Cosmid Library	39
3.11.9 Purification of the Positive Clones	40
3.12 YAC Contig Construction	
3.12.1 YAC	40
3.12.2 STS	40

3.13 BAC and PAC Contig Construction	
3.13.1 High Density Filter Libraries	43
3.13.2 DNA Pool Libraries	44
3.14 Genotyping and Linkage Analysis	44
3.15 WWW. Web Sites	46
4 Results	
4.1 Clinical Data	47
4.2 Genotypes and Linkage Results	
4.2.1 Two Points Lod Score of the SPG4 Family	48
4.2.2 Haplotype of the SPG4-Linked Family	49
4.3 YAC Contig Mapping	
4.3.1 YAC Contig Spanning the <i>SPG4</i> Critical Region between <i>D2S400</i> and <i>D2S367</i>	52
4.3.2 13 ESTs were Newly Assigned to <i>SPG4</i> Critical Region	52
4.3.3 The Sizes of <i>SPG4</i> Critical Region	54
4.4 Search for CAG/CTG Repeats in <i>SPG4</i> Critical Region 2p21-p24	
4.4.1 Cosmid Libraries within <i>SPG4</i> Critical Region were Constructed	56
4.4.2 Six CAG/CTG Containing Fragments were Isolated	58
4.4.3 One New STRP was Identified for Indirect Diagnosis	59
4.4.4 Development of Five New STSs and Anchoring in the <i>SPG4</i> Critical Region	62
4.4.5 Analysis of the CAG/CTG repeats in SPG4 Patients	64
4.5 PAC/BAC Contig Mapping	
4.5.1 Updating the STSs to the Contig	66
4.5.2 Assembly of Several BACs and PACs in SPG4 Critical Region	68
4.5.3 <i>SPAST</i> is Located in BAC G11100	68
4.5.4 Sizes of BACs and PACs Mutation Detection of SPG4 patients	70

4.6 Mutation detection of SPG patients	
4.6.1 Identification of A Novel Mutation 1206-1209delCCTT	72
4.6.2 Identification An Intronic Polymorphism 1298+17A>C	74
 5 Discussion:	
5.1 Discovering <i>SPAST</i>	77
5.2 Mutation detection of <i>SPAST</i>	83
5.3 Hypothesis of Spastin Function	88
5.4 Hypothesis of mutation effect in <i>SPAST</i>	91
5.5 Prospective view	94
 6 Conclusion	95
Zusammenfassung	97
 7 References	99

