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DISSERTATION

**Analysis of the expression regulation of the human
atrial myosin light chain 1 upon hypertrophic stimulation**

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CONTENTS

ABBREVIATIONS	5
1. INTRODUCTION	8
1.1 Cardiac hypertrophy	8
1.1.1 Mechanosensors couple wall stress to intracellular signals	9
1.1.2 Vasopressin and cardiac hypertrophy	13
1.1.2.1 Vasopressin receptors	13
1.1.2.2 Physiological role of vasopressin	14
1.1.2.3 Role of vasopressin in cardiomyocytes	15
1.1.2.4 Vasopressin induces hypertrophy in H9c2 cardiomyoblasts	17
1.1.3 Hypertrophic signaling pathways	19
1.1.3.1 Calcium is a key factor in cardiac hypertrophy	19
1.1.3.2 Calcium-calmodulin-dependent signaling pathways	19
1.1.3.2.1 Calcineurin-NFAT signaling	20
1.1.3.2.2 Multifunctional CaMK signaling	21
1.1.3.2.2.1 Signaling via MEF2	23
1.1.3.3 Signaling via PKC	25
1.1.3.4 Signaling via MAPK	26
1.1.3.5 Cross-talk	26
1.1.4 Gene expression during cardiac hypertrophy	27
1.1.5 Type II myosin	28
1.1.5.1 Expression regulation of the human atrial myosin light chain 1 (hALC-1)	29
1.1.5.2 Functions of hALC-1	34
1.1.6 Pathophysiological aspects of cardiac hypertrophy	35
1.1.6.1 Hypertrophic cardiomyopathy caused by mutations	36
1.1.6.2 Dilated cardiomyopathy and heart failure	38
1.2 Aim of the study	39
2. MATERIALS	40
2.1 Equipment	40

2.2 Plasmid vectors	40
2.3 Enzymes	41
2.4 Bacteria	41
2.5 Plasmid purification	41
2.6 Oligonucleotides	41
2.7 Molecular weight markers (M)	42
2.8 Cell lines	42
2.9 Cell culture reagents	42
2.10 Chemicals and inhibitors used in cell culture experiments	42
2.11 Kits	42
2.12 Membranes and films	43
2.13 Antibodies	43
2.14 Animals	43
2.15 Chemicals	44
3. METHODS	45
3.1 Generation of the reporter gene construct	45
3.1.1 Amplification of the human ALC-1 promoter by PCR	45
3.1.2 Cloning of the reporter gene construct	45
3.1.3 Sequence analysis	46
3.1.4 Restriction enzyme analysis	46
3.1.5 Gel electrophoresis	46
3.2 Cell culture	47
3.2.1 Maintenance of the H9c2 cardiomyoblasts	47
3.2.2 Freezing of the H9c2 cardiomyoblasts	47
3.3 Testing of different transfection methods	48
3.4 Dose response curve for selection of the H9c2 cardiomyoblasts with G418	48
3.5 Generation of the stably transfected H9c2 cardiomyoblast lines (H9c2T1 and H9c2T2)	48
3.5.1 Preparation of DNA	48
3.5.2 Calcium phosphate transfection	49
3.5.3 Selection with G418 and subcloning	49
3.5.4 Microscopic analysis of H9c2 and H9c2T cardiomyoblasts	49
3.6 Genotyping of the stably transfected H9c2 cardiomyoblasts	50

3.6.1	Extraction of DNA	50
3.6.2	PCR	50
3.7	Cell culture treatments	50
3.7.1	Stimulation with vasopressin	51
3.7.2	Stimulation with ionomycin	51
3.7.3	Stimulation with vasopressin under Ca ²⁺ -free conditions	51
3.7.4	Treatment with inhibitors	51
3.8	Determination of protein in H9c2/H9c2T1 cardiomyoblasts	52
3.8.1	Extraction of protein	52
3.8.2	Protein quantification	52
3.9	Luciferase assay	52
3.9.1	Cell harvest and extraction of luciferase	52
3.9.2	Luminescence analysis	53
3.10	Western blot analysis	53
3.10.1	Generation of ALC-1 antibodies	53
3.10.2	Protein extraction from rat heart tissue	54
3.10.3	Electrophoresis	54
3.10.4	Immunoblotting	55
3.10.5	Immunodetection	55
3.11	Immunofluorescence analysis	56
3.12	Determination of the percentage of nuclear NFAT staining	57
3.13	Statistics	58
3.14	Promoter consensus binding site analysis	58
4.	RESULTS	59
4.1	Establishment of the H9c2 cardiomyoblast cell model	59
4.1.1	Generation of the reporter gene construct	60
4.1.2	Generation of the stably transfected H9c2 cardiomyoblast lines (H9c2T1 and H9c2T2)	62
4.1.3	Establishment of the luciferase assay	65
4.2	Stimulation of H9c2T1 cardiomyoblasts with vasopressin	66
4.3	Analysis of endogenous ALC-1 expression in H9c2T1 cardiomyoblasts	68
4.4	Analysis of the involved Ca ²⁺ sources	70

4.4.1 Treatment of H9c2T1 cardiomyoblasts with ionomycin	70
4.4.2 Treatment of H9c2T1 cardiomyoblasts with vasopressin in Ca ²⁺ -free culture medium	71
4.5 Analysis of hypertrophic signaling pathways	72
4.5.1 Inhibition with bisindolylmaleimide	73
4.5.2 Analysis of the Ca ²⁺ -calmodulin-calcineurin-NFAT pathway	74
4.5.2.1 NFAT localization in H9c2T1 cardiomyoblasts	75
4.5.2.2 Specificity of the NFAT antibody	77
4.5.2.3 Confocal micorscopy of NFAT stained H9c2T1 cells	79
4.5.2.4 Inhibition with cyclosporin A	80
4.5.3 Analysis of the Ca ²⁺ -calmodulin-dependent protein kinases (CaMKs) ...	81
4.5.3.1 Inhibition with KN93	81
4.5.3.2 Localization of CaMK forms	83
4.6 Analysis of hALC-1 promoter activity in a second stably transfected cardio- myoblast line (H9c2T2)	85
4.7 Analysis of consensus binding sites in the hALC-1 promoter	86
5. DISCUSSION	87
6. SUMMARY	98
7. ZUSAMMENFASSUNG	99
8. REFERENCES	100
9. APPENDIX	122
9.1 Sequence analysis of the human ALC-1 promoter	122
9.2 Publications	123
9.3 Curriculum Vitae	125
9.4 Acknowledgements	127
9.5 Erklärung	128

ABBREVIATIONS

ADP	Adenosine diphosphate
ALC-1	Atrial myosin light chain 1
ANF	Atrial natriuretic factor
Ang II	Angiotensin II
ANP	Atrial natriuretic peptide
AP-1	Activator protein-1
ATF-1	Activating transcription factor-1
ATP	Adenosine triphosphate
bFGF	Basic fibroblast growth factor
bHLH	Basic helix-loop-helix
BIM	Bisindolylmaleimide
bp	Base pairs
CaM	Calmodulin
CaMK	Ca ²⁺ -calmodulin-dependent protein kinase
CaMKs	Ca ²⁺ -calmodulin-dependent protein kinases
CaMKKs	CaMK kinases
cAMP	Cyclic-3'-5'-adenosine monophosphate
CBP	CREB-binding protein
C/EBP	CAAT-enhancer binding protein
CHF	Congestive heart failure
CRE	cAMP-response element
CREB	cAMP-response element-binding protein
CspA	Cyclosporin A
DAG	1,2-diacylglycerol
DCM	Dilated cardiomyopathy
DNA	Deoxyribonucleic acid
eIFs	Eukaryotic initiation factors
ER	Endoplasmic reticulum
ERK	Extracellularly responsive kinase
ERKs	Extracellularly responsive kinases
ET-1	Endothelin-1
FAK	Focal adhesion kinase

GDP	Guanosine diphosphate
GPCR	G-protein-coupled receptor
GPCRs	G-protein-coupled receptors
G _q	G _q -protein
GTP	Guanosine triphosphate
hALC-1	Human ALC-1
HAND	Heart autonomic nervous system neural crest derivative
HCM	Hypertrophic cardiomyopathy
HDAC	Histone deacetylase
HDACs	Histone deacetylases
HOCM	Hypertrophic obstructive cardiomyopathy
IGF-1	Insulin-like growth factor 1
IL-1	Interleukin 1
IL-6	Interleukin 6
IM	Ionomycin
IP3	Inositol 1,4,5-trisphosphate
JNK	c-Jun N-terminal kinase
JNKs	c-Jun N-terminal kinases
kDa	Kilo Dalton
Luc	Luciferase
M	Molecular weight marker
MAP	Mitogen-activated protein
MAPK	Mitogen-activated protein kinase
MAPKs	Mitogen-activated protein kinases
MAPKK	MAPK kinase
MAPKKK	MAPKK kinase
MCIP	Myocyte-enriched calcineurin-interacting protein
MEF2	Myocyte enhancer factor 2
MHC	Myosin heavy chain
min	Minute
MLC	Myosin light chain
mRNA	messenger RNA
NCX	Na ⁺ /Ca ²⁺ exchanger
NFAT	Nuclear factor of activated T cells

NHE	Na ⁺ /H ⁺ -exchanger
NLS	Nuclear localization signal
PE	Phenylephrine
P _i	Inorganic phosphate
PI3K	Phosphoinositide 3-kinase
PKA	Protein kinase A
PKB	Protein kinase B
PKC	Protein kinase C
PLC	Phospholipase C
RNA	Ribonucleic acid
RT	Room temperature
RyR	Ryanodine receptor
SACs	Stretch-activated channels
SERCA	Sarcoplasmic reticulum Ca ²⁺ -ATPase
SVR	Systemic vascular resistance
TF	Transcription factor
TGF-β	Transforming growth factor β
TNF-α	Tumor necrosis factor α
TOF	Tetralogy of Fallot
tRNA	transfer RNA
UTR	Untranslated region
UTRs	Untranslated regions
V	Vasopressin
VLC	Ventricular myosin light chain

9.3 Curriculum Vitae

Mein Lebenslauf wird aus Datenschutzgründen in der elektronischen Version meiner Arbeit nicht mit veröffentlicht.

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9.5 Erklärung

Hiermit erkläre ich, dass ich die vorliegende Dissertation selbständig und ohne (unzulässige) Hilfe Dritter angefertigt habe. Die Dissertation stellt auch in Teilen keine Kopie anderer Arbeiten dar. Die benutzten Hilfsmittel sowie die Literatur sind vollständig angegeben.

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Christiane Woischwill