Application of the Subtractive Hybridization Method
to study Gene Expression in Rat Liver
after Cadmium Exposure

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Induction of gene expression in male Sprague-Dawley rat liver after a sublethal dose of CdCl₂ was studied using the subtractive hybridization method. Cd-induced liver cDNA was enriched by subtractive hybridization using normal liver mRNA as driver. The subtracted cDNA was further amplified by polymerase chain reaction and labeled for screening of Cd-induced cDNA clones from the cDNA library. Around 70 positive clones were identified. One of these clones was identified as rat α-2u globulin after DNA sequence analysis of the PCR product followed by a search for homology in the gene data banks. Northern blot analysis confirmed that besides metallothionein, α-2u globulin is also inducible by Cd.
TABLE OF CONTENTS

Abstract i

Acknowledgments ii

Table of Abbreviations iii

Table of Contents iv

Part I: Introduction

1.1 General background 1

1.2 Cadmium Toxicity 4

1.3 Metallothionein as a stress protein 7

1.3.1 Nomenclature and occurrence 7

1.3.2 Structure of mammalian MT 9

1.3.3 Induction of Metallothionein 10

1.3.4 Induction of MT after Cd exposure 12

1.3.5 Functions of Metallothionein 12

1.3.6 MT as a biindicator of metal exposure 16

1.4 Subtractive Hybridization 17

1.4.1 Background information 17

1.4.2 Subtractive hybridization technique 18

1.5 The objective of this study 20

Part II: Materials and Methods

2.1 Materials 22

2.2 Animal Treatment 22
2.3 Extraction of rat liver total RNA

2.3.1 Monitoring the integrity of total RNA by agarose gel electrophoresis

2.4 Purification of poly (A)+ RNA by Oligo (dT)-cellulose column chromatography

2.5 Construction of Cd-induced cDNA library

2.5.1 First Strand synthesis

2.5.2 Second Strand synthesis

2.5.3 Addition of EcoRI/NotI site onto the cDNA

2.5.4 Ligation of cDNA with EcoRI digested vector λgt11

2.6 Preparation of MT cDNA probe

2.6.1 Preparation of competent cells

2.6.2 Large-scale Preparation of Plasmid DNA containing MT cDNA

2.6.3 Preparation of MT cDNA fragment by restriction enzyme digestion

2.6.4 Confirmation of the complete restriction enzyme digestion by polyacrylamide gel electrophoresis

2.6.5 Elution of MT cDNA fragments from polyacrylamide gel slice

2.7 Northern Blotting

2.8 Procedures for Subtractive hybridization

2.8.1 Subtractive hybridization technique to pool the Cd-induced cDNA

2.9 In vitro amplification of subtracted Cd-induced cDNA

2.10 In Vitro amplification of the cDNA insert in the library
2.11 Preparation of $^{32}$P-labeled subtracted Cd-induced cDNA by random primer labeling method

2.12 Screening of Cd-inducible clones from the rat liver cDNA library

2.13 Plaque hybridization

2.14 Asymmetric PCR for amplification of DNA template

2.15 DNA sequencing

2.16 Polyacrylamide gel electrophoresis for DNA sequence analysis

2.17 Data analysis

Part III: Results

3.1 Induction of MT from rat liver

3.2 Separation of the Cd-induced genes by the subtractive hybridization technique

3.3 Screening of Cd-induced cDNA clones

3.3.1 Construction of Cd-treated rat liver cDNA library

3.3.2 Selection of Cd-induced recombinant clones from the cDNA library

3.4 Identification of Rat Cd-1

Part IV: Discussion and Conclusion

4.1 Induction of MT in rat liver

4.2 Subtractive Hybridization technique

4.3 $\alpha 2u$-globulin as a Cd-induced gene

4.4 Comparison of $\alpha 2u$-globulin with Cd-binding-protein -- MT

vi