

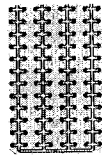
Presented
by
Frederico Goodsaid, Ph.D
at the
Nonclinical Studies Subcommittee
of the
Advisory Committee for Pharmaceutical Science

March 9, 2000

TaqMan Gene Expression Arrays for Accurate Quantification of Toxicity Targets



Biosystems

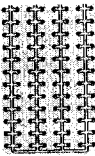


Agenda

- Test Procedure
- Specifications
- Validation Results



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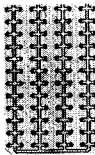


Test Procedure

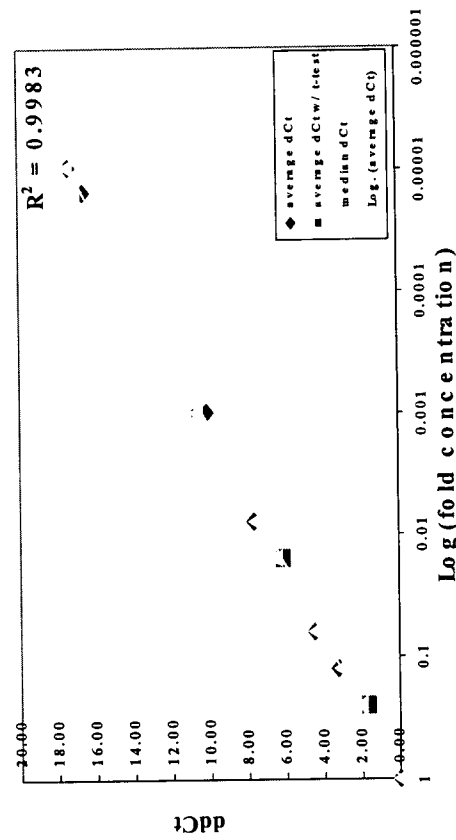
- RNA isolation
- cDNA generation (may be skipped with one-step RT-PCR)
- Card loading and sealing
- Thermal cycling
- Data Analysis



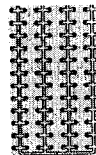
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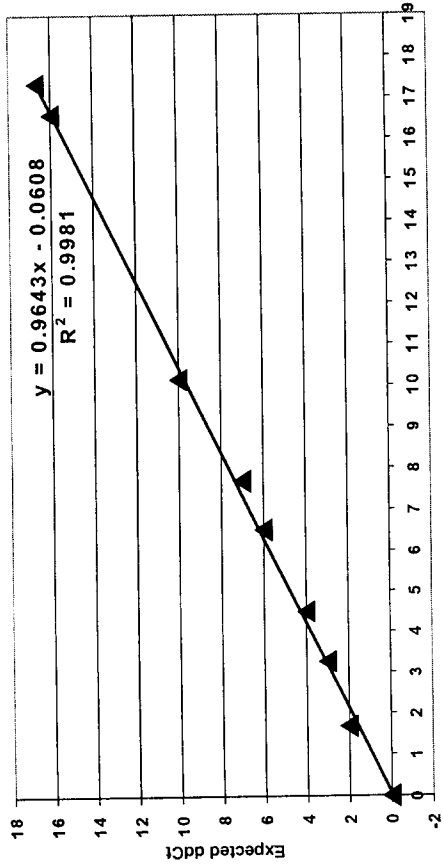
Dynamic Range in the Cytokine Card



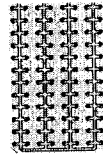
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Dynamic Range in the Cytokine Card



Actual ddCt

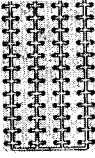
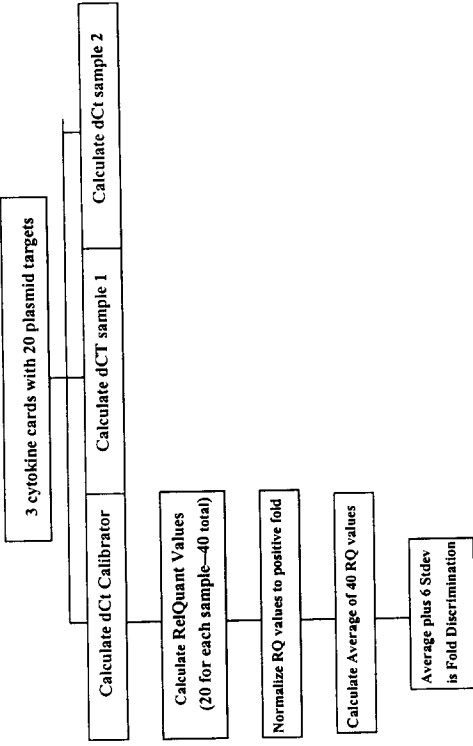


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Fold-Discrimination in the Cytokine Card

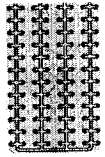
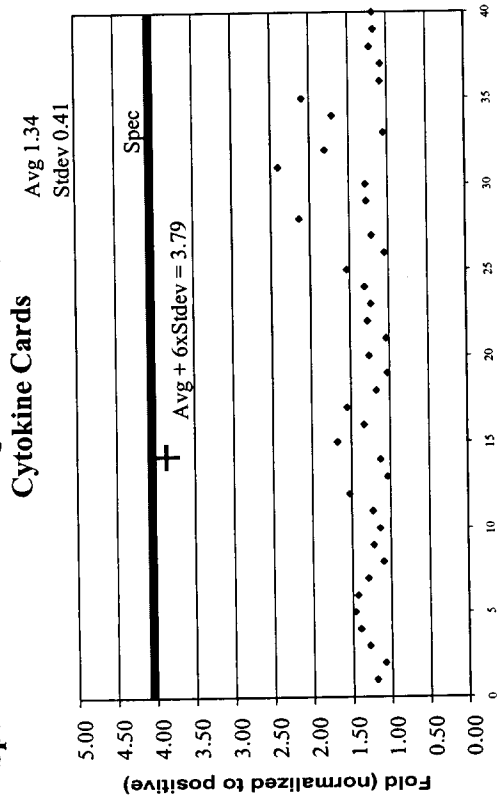


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Specifications: Relative Quantification (median/ttest) for 3 Cytokine Cards

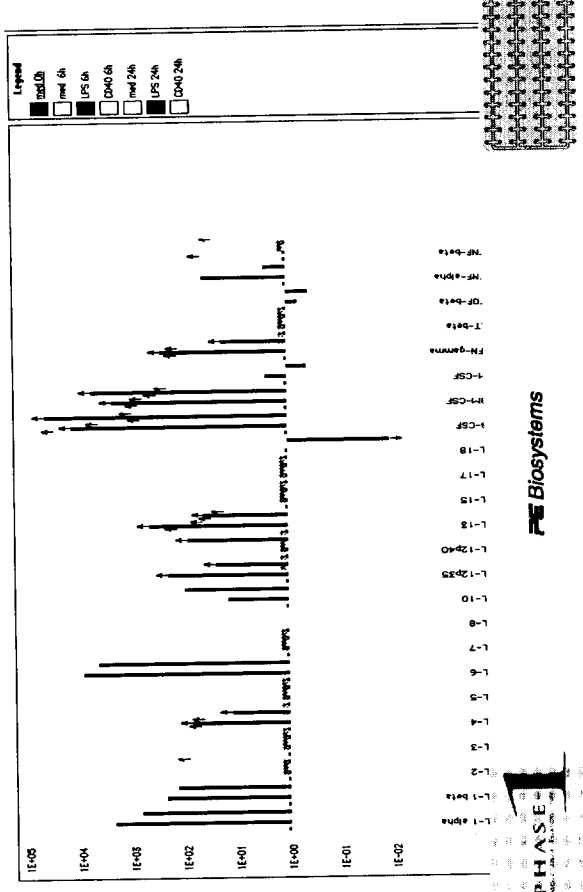


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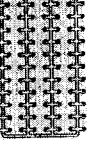


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DNAx: Cytokine Gene Expression and PBMC Activation

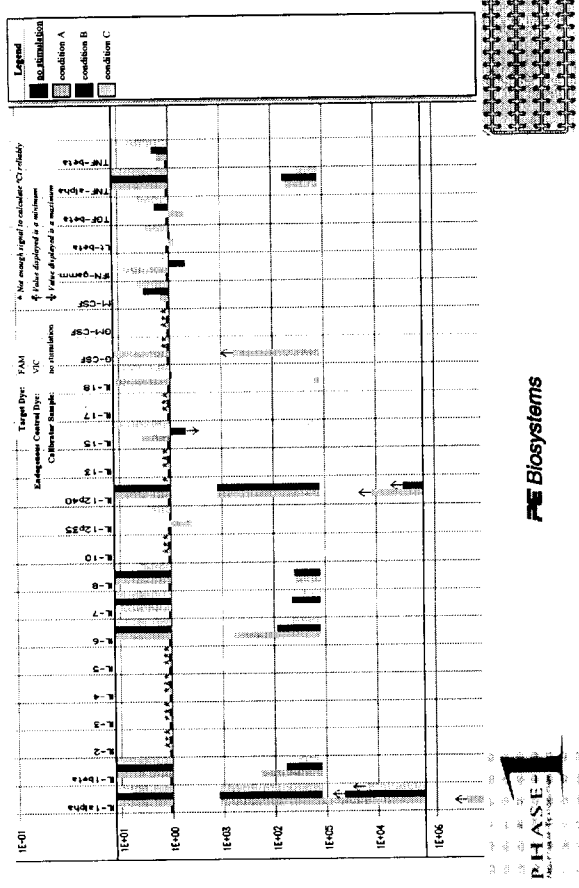


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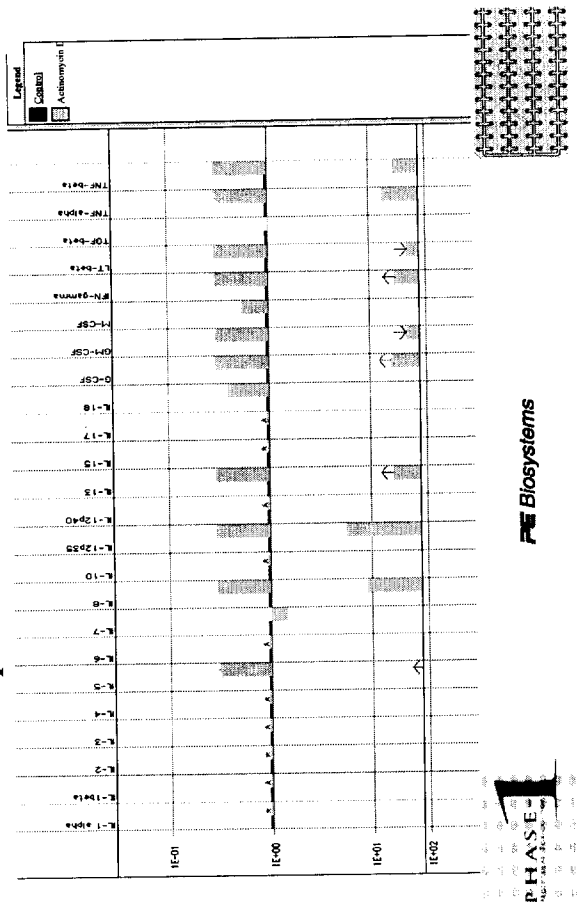
Source Precision Medicine: Cytokine Gene Expression and PBMC Activation



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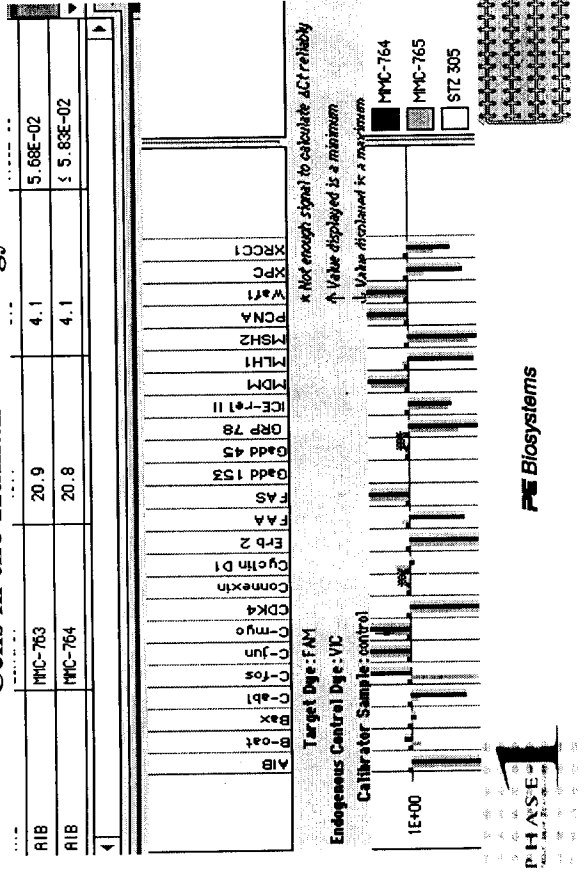
Phase 1 Molecular Toxicology: Cytokine Gene Expression in Liver Cell Cultures



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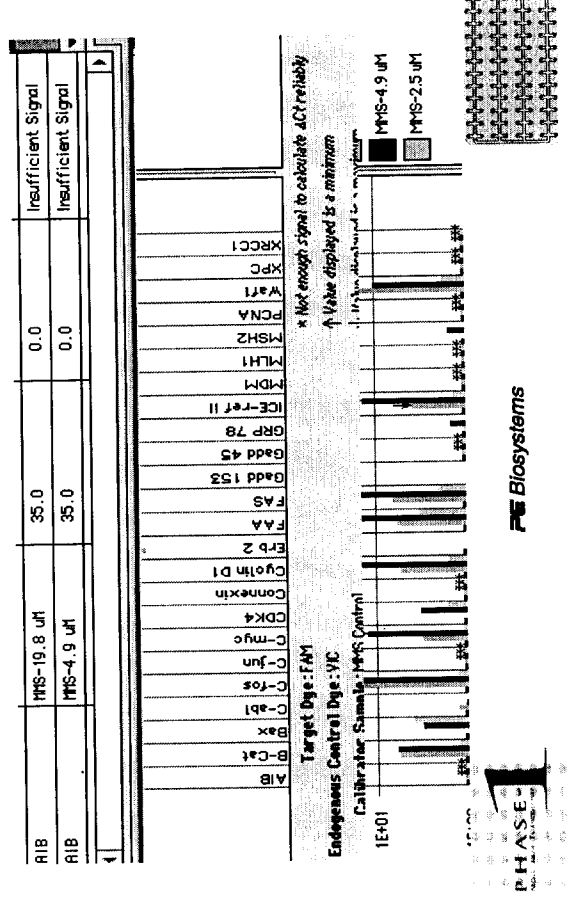
Phase 1 Molecular Toxicology: MMC Incubations of Liver Cells in the Human Toxicology Card



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Phase 1 Molecular Toxicology: MMS Incubations of Liver Cells in the Human Toxicology Card

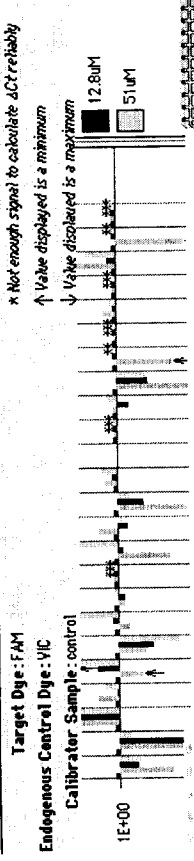


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Phase 1 Molecular Toxicology: Carnustine Incubations of Liver Cells in the Human Toxicology Card

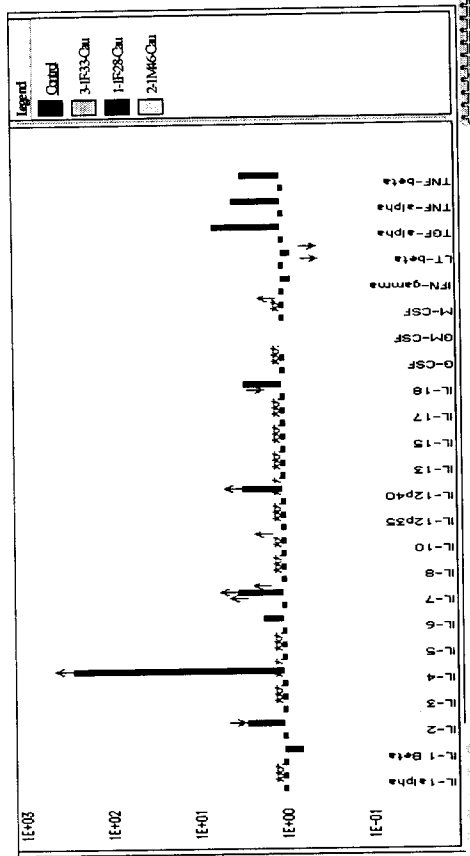
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AR				
B-Cat				
Bax				
C-ab1				
C-Fos				
C-Jun				
C-myo				
CK4				
Connexin				
Cyolin D1				
Erb B2				
FAB				
FAB				
Gadd 153				
Gadd 45				
GRP 78				
ICE-ref II				
MDM				
MLH1				
MSH2				
PCNA				
Waf1				
XPC				
XRCC1				



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 Molecular Toxicology

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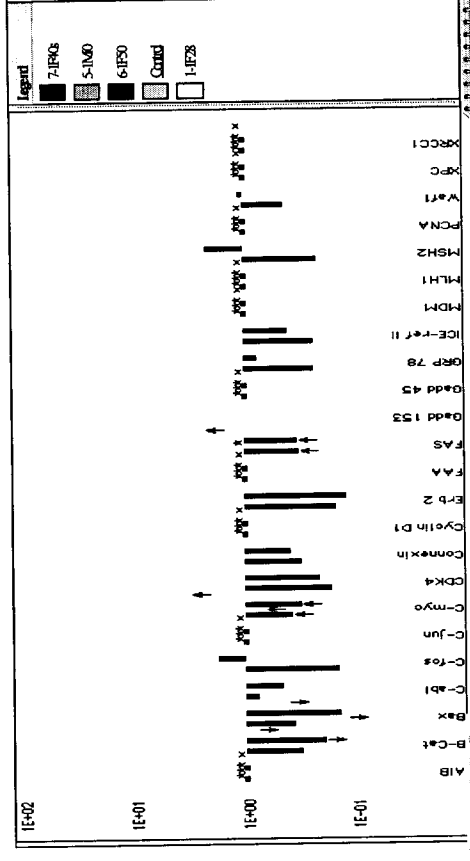
Phase 1 Molecular Toxicology: Cytokine Gene Expression in RNA Isolated from Blood Cells



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 Molecular Toxicology

PE Biosystems

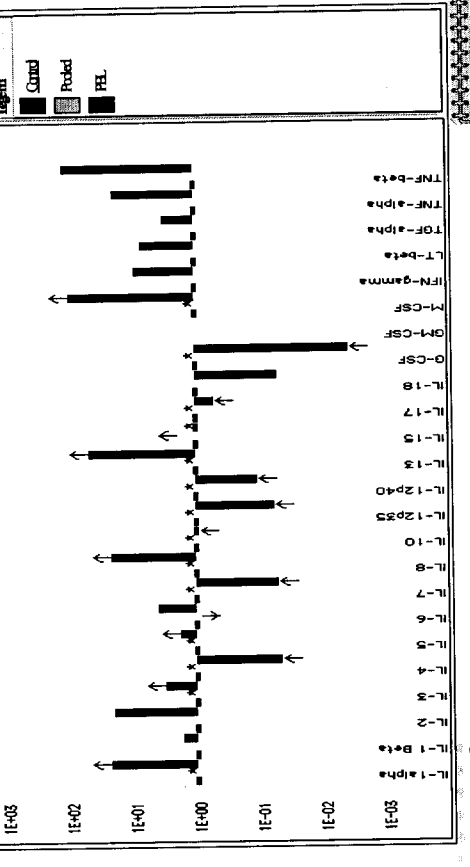
Phase 1 Molecular Toxicology: Toxicology Gene Expression in RNA Isolated from Blood Cells



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 Molecular Toxicology

PE Biosystems

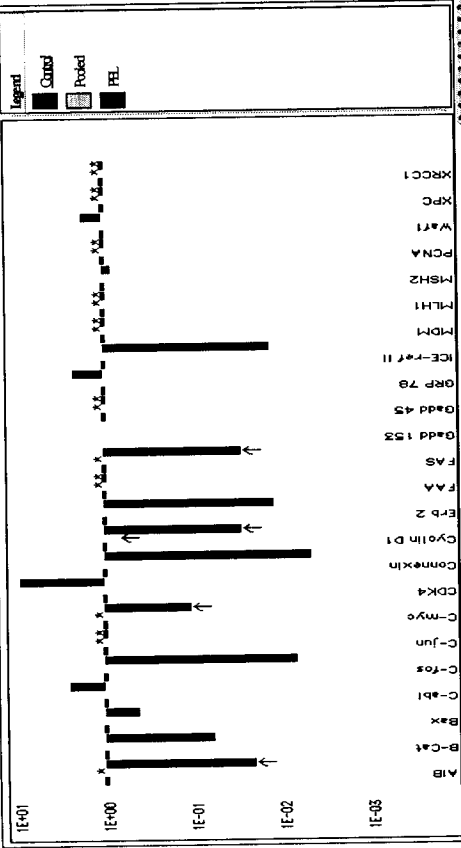
Phase 1 Molecular Toxicology: Cytokine Gene Expression in RNA Isolated from Lymphocyte Cultures



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 Molecular Toxicology

PE Biosystems

Phase 1 Molecular Toxicology: Toxicology Gene Expression in RNA Isolated from Lymphocyte Cultures



PE Biosystems

