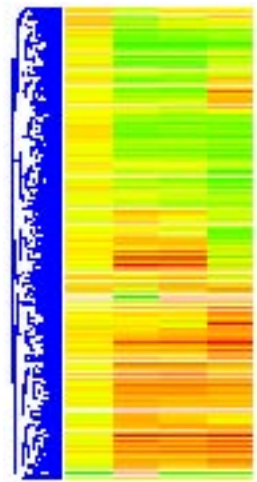


Bio Interpreter And ArrayAid

Biological Analysis and Interpretation of Micro Array Data

ArrayAid and Biointerpreter are powerful biological annotation and interpretation tools designed specifically for analysing microarray data. Supported by Information curated from publications, Integrated Interpretation modules and customizable searches, the tools enable scientists to get complete value of the microarray data. Digitized data* enables rapid and precise searches. Regular updates and custom curation ensures users do not miss the most recent publications relevant to their study.

The Major bottlenecks to derive biological meaning from gene expression measurements are data collection, organization and datamining. Biointerpreter and ArrayAid specifically address this bottleneck and aid quick and efficient Biological analysis and interpretation.



From Statistical significance to Biological significance

Using Biointerpreter one can quickly and confidently uncover the biological significance of the statistically significant genes from microarray data analysis.

Biointerpreter helps quickly find the obvious and the hidden significance of the differentially regulated genes.

Support Diverse Gene Identifiers

ArrayAid & Biointerpreter support more than 10 different gene Identifier types from Genbank, Swissprot, Affymetrix, Agilent, TIGR, NCBI, Unigene etc.

Genomic Information

Biointerpreter allows Mapping of differentials to chromosome or genome and helps pull out significantly differentially regulated regions of the genome.

Functional Information

Annotates genes for various functions and groups them by categories. This feature is powered by gene ontology and curated literature information.

Pathway Information

Maps genes to various pathways as described in databases and publications and predicts the pathways altered by the treatment.

Cellular Localization

Finds intracellular localization of transcripts and their translocation capability. You can further find the functional significance of the genes selected from one or more cellular locations.

Diseases Information

Provides the association of the differentially regulated genes to diseases and helps reach the source of the association by a mouse click.

Significant Chromosomes

■ Chromosome 7	20%	3/15
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Significant Functions

■ Transcription (3448)	16%	9/15
■ Apoptosis (1458)	40%	6/15
■ Cell Differentiation(1410)	40%	6/15
■ Growth factors and regulators (1306)	40%	6/15
■ Cell proliferation (1388)	46%	7/15
■ Homeostasis (525)	26%	4/15
■ Immune response (3891)	46%	7/15
■ Inflammation (1680)	46%	7/15
■ Metabolism (3171)	26%	4/15
■ Neuronal (4219)	33%	5/15
■ Transcription regulation (2520)	26%	4/15
■ Signal transduction (4278)	46%	7/15
■ Receptors / Legand mediation (4840)	73%	11/15
■ Stress (1774)	26%	4/15
■ Oncogenesis (679)	26%	4/15
■ Splice variant (3700)	26%	4/15

○ AND ○OR [Table_View](#)

Significant Pathways

■ MAPK signaling pathway (245)	2/15
■ ECM receptor interaction (82)	2/15
■ Focal adhesion (161)	2/15

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Cellular Localisation

■ Cytoplasm (2460)	13%	2/15
■ Endosome (123)	6%	1/15
■ Extracellular(1176)	60%	9/15
■ Nucleus (4243)	26%	4/15
■ Plasma membrane (1521)	20%	3/15
■ Secreted (995)	46%	7/15

[Table_View](#)

Significant Diseases Related

■ Cancer (4016)	93%	14/15
■ Prognosis and Diagnosis(791)	26%	4/15
■ Syndrome (1043)	33%	5/15
■ Diabetes (394)	20%	3/15

[Table_View](#)

* Patent Pending

Hot Molecules and Key Genes

Association of gene list with disease markers, known drug targets and other key genes.

Gene Expression Databases

Compares your data with diseases and treatments from curated EST and SAGE libraries.

Gene Co-regulation Information

Allows comparison of your data with published microarray datasets. Data from 100s of Microarray experiments are curated and catalogued for easy access.

Published Gene Expression Data

Matches your genes with curated Microarray data from publications and get expression based interpretation. Responses to drugs, chemicals, diseases (like Cancer), stress (like Heat Shock) and other conditions are covered.

Tissue Expression Profiles

Annotates your genes for expression levels in tissues and conditions.

ArrayAid

ArrayAid is a tool for custom annotation of gene expression data. It minimizes the time taken for post-array informatics. You can quickly annotate a gene list for search terms defined by you. The results are provided in easy to use tabular format.

Catalogue numbers - Human: AAB01, Mouse AAB02, Rat AAB03, M.tuberculosis AAB04, Rice AAB05, Arabidopsis AAB06, Zebrafish AAB07, S.cervicaceae AAB08, S.pombe AAB09, C.albicans AAB10 and Drosophila AAB11.

Technical Support

ArrayAid & Biointerpreter license includes hands on training program and technical support.

Enquire for :

High quality Agilent Microarray Slides, Custom Printing of Arrays, End to End Microarray Hybridization and Analysis Service, Agilent Genespring GX & GT software for Microarray and Genotyping Data Analysis Solution.

Website Reference

<http://www.arrayaid.com>
<http://www.biointerpreter.com>

Biointerpreter & ArrayAid - Technical Details, System Requirements and Support

Operating Systems – Any (Platform Independent). Web based application, accessible through any web browser.

Recommended Browser– Internet Explorer 5.5 and above

Internet Speed > 64kbps

System specific authentication based access.

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Hot Molecules (from curated database)

Multi Functional Gene		13%	2/15
Involved in Many Disease		6%	1/15
Expressed under various conditions		100%	15/15
Breast Cancer Marker		40%	6/15
Expressed in various cancer types		33%	5/15

Cancer Gene Expression Data by EST Database

Experiment condition	Red-Up	Green-Down	Blue-Both	Up	Down	Both
Adrenal_Tumour (27-77-1)				0	1	0
Bone_Tumour (661-191-27)				0	1	0
Brain_Tumour (533-991-337)				3	0	1
Colon_Tumour (3104-505-223)				2	1	0
Eye_Tumour (1786-1333-25)				1	1	0
Germcell_Tumour (1927-1518-69)				1	0	1
Head and Neck_Tumour (133-703-13)				0	1	0
Lung_Tumour (3491-835-339)				3	0	0
Lymph_Tumour (1032-645-60)				1	0	0
Muscle_Tumour (1136-770-115)				1	0	0
Ovary_Tumour (2868-645-593)				2	2	0
Pancreas_Tumour (1271-0-132)				2	0	0
Placenta_Tumour (638-612-0)				0	1	0
Skin_Tumour (2678-971-279)				2	1	0
Uterus_Tumour (2385-1122-179)				2	1	1

Gene Expression Data

Experiment condition	Red-Up	Green-Down	Blue-Both	Up	Down	Both
Apoptosis (44-31-4)				1	0	0
Leukemia (706-571-176)				3	1	0
Stress (882-1178-194)				3	0	1
Cell Line Vs Tumour (455-0-0)				2	1	0
Normal Vs Cancer (190-99-6)				1	1	0
Cancer Stages (41-39-1)				1	0	1
Primary Tumour Vs Metastasis (895-526-42)				0	1	0
Response to Cancer Drugs (245-304-196)				3	0	0
Response to Other Drugs (126-104-4)				1	0	0
Harmones and Growth Factor Studies (256-235-183)				1	0	0
Gene Mutation Over Expression (41-31-2)				2	2	0
Unclassified (550-298-133)				2	0	0
Response to Organic Compounds (8-139-0)				0	1	0

ArrayAid & Biointerpreter

Input Type: Paste ID's

Max. 200 IDs

Biointerpreter

Function:

Localisation:

Disease:

Pathways:

Keyword:

Gene Expression: