

BioExpress® Atlas Reference Suite

Making the normal extraordinary.

Gene expression data from a comprehensive collection of healthy tissues are essential for establishing a baseline of what constitutes normal expression. A reference set of normal healthy samples provides a critical resource for determining the tissue specificity of a target and the potential for unwanted cross reactions. Taken together, these are the basis and rationale for the BioExpress® Atlas Reference Suite.

The BioExpress® Atlas Reference Suite, a subset of the BioExpress® System, contains Affymetrix GeneChip® array gene expression data and extensive clinical information from healthy human and animal tissues. When used with the Genesis Enterprise System® Software the Atlas Reference Suite allows researchers to rapidly compare the distribution of expression of genes of interest across a set of tissues. All of this is done without the time and cost of sample collection and data generation. Each tissue that enters the database is subject to stringent quality control standards, applied at all levels of tissue acquisition, handling, pathology review, and processing. No tissue enters the system for gene expression analysis until examined by a board-certified pathologist to ensure they represent clinically and histologically normal samples.

Fast and Powerful Responses

The BioExpress® Atlas Reference Suite allows:

- Unlimited gene expression queries across thousands of normal human and animal samples encompassing over 100 normal organ and tissue types.
- Rapid screening and prioritization of potential therapeutic targets through their distribution patterns across normal tissues.
- Leveraging of proprietary sequence information or genetic technologies by identifying normal expression patterns of candidate genes.

A Comprehensive Survey of Normal Healthy Gene Expression

The BioExpress® Atlas Reference Suite is derived from the following relevant and representative organs and tissues in humans, mice, and rats:

BioExpress® Atlas Reference Suite Coverage

Organ Systems	Representative Tissues
Cardiovascular System	Heart, aorta, arteries, veins
Hematopoietic System	Blood cell fractions, spleen, thymus, lymph node, tonsil
Digestive System	Esophagus, stomach, intestines, liver, pancreas
Endocrine System	Pituitary, adrenal gland, thyroid gland
Nervous System	Brain regions, peripheral nervous tissue
Reproductive Systems	Fallopian tubes, uterus, uterine cervix, ovaries, testes
Respiratory Tract	Lungs, bronchi, trachea
Muscle	Skeletal muscle, cardiac muscle, smooth muscle
Skeletal System	Bone
Urinary Tract	Kidney, urinary bladder, prostate
Other	Skin, adipose tissue

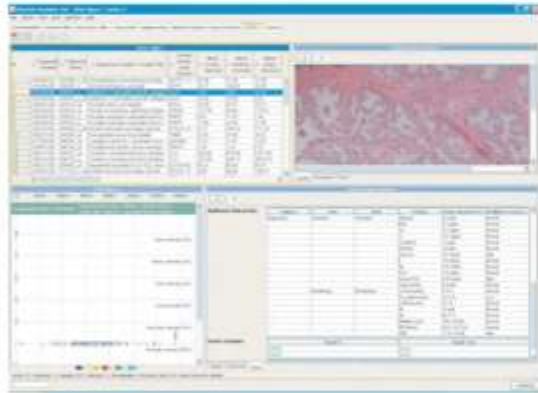
Robust, Reliable, and Reproducible Analysis

Gene expression data are generated using Affymetrix GeneChip® arrays spanning multiple GeneChip® array types. Standard Affymetrix processing protocols ensure that the final data are comparable with those generated in the scientist's environment. Gene Logic's proprietary processes and numerous quality control standards ensure that only the highest quality data are contained in the BioExpress® Atlas Reference Suite. The result is a robust, reliable and reproducible analysis, capable of comparative measurements.

Powerful Tools for Precise, Customized Results

The BioExpress® Atlas Reference Suite is enhanced by the Genesis Enterprise System® Software, which features powerful tools that enable:

- Analysis and visualization of expression levels of genes and ESTs across normal tissues.



Example of an adjacent normal prostate sample. Coupled viewers allow the user to leverage the rich clinical information combined with gene expression modulation data to draw rapid conclusions in which normal tissues specific genes are expressed.

- Incorporation of signal transduction and metabolic pathway maps from KEGG and BioCarta™ databases with linkage to more detailed information about specific genes of interest.
- Seamless integration with additional tools from other suppliers for clustering, statistical analysis and graphic display.
- Chromosome mapping.

Flexible Solutions

Gene Logic offers a wide selection of gene expression information solutions in a variety of configurations to meet your scientific and budgetary needs. Customers may gain access to data from individual samples, to the entire BioExpress® System, or to a subset of the BioExpress® System, via one of our therapeutic area-specific database suites:

- Atlas Reference (Normal Healthy Tissues)
- Cardiovascular
- Central Nervous System
- Inflammation
- Metabolic
- Oncology

Our information products may be licensed on an annual subscription basis or may be licensed on a perpetual basis, depending on your needs.

For more information about Gene Logic's flexible BioExpress® System solutions, including a product demonstration, call 1-800-GENELOGIC.



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