

Subsets for Cancer, Signal Transduction, Enzymes Expressed in Liver, Stress and Aging, and Apoptosis from our Array-Ready Oligo Set™ for the Human Genome

We are pleased to announce five new subsets for human focusing on cancer, signal transduction, enzymes expressed in liver, stress & aging, and apoptosis genes. All oligos are from our Human Genome Oligo Set Version 2.0.

Gene Sequence Source and Selection

The five new subsets are composed of probes selected from our Human Genome Oligo Set Version 2.0. All probes are designed from the UniGene Database Build Hs 147 (February 2002) and the Human Reference Sequence (RefSeq) Database, both developed and maintained at the National Center for Biotechnology Information (www.ncbi.nlm.nih.gov). For further information on gene sequence source, probe selection criteria and rules, and other data, please refer to the *Human Genome Oligo Set Version 2.0* Data Sheet.

Number of Oligos

Human subsets	Number of oligos in subset	Number of positive controls	Number of negative controls	Total number of oligos in subset including controls
Cancer	3028	6	6	3040
Signal transduction	2074	6	6	2086
Enzymes expressed in liver	1311	6	6	1323
Stress & aging	722	6	6	734
Apoptosis	368	6	6	380

Set descriptions

Gene lists for each subset are available for viewing and downloading from our web site.

Cancer

The Human Cancer Subset is composed of 3040 oligos including controls. The subset has 3028 oligos from cancer-related genes plus 6 positive and 6 negative control oligos. Among the categories of genes included are oncogenes, tumor suppressors, cell cycle, and apoptosis.

Signal transduction

The Human Signal Transduction Subset is composed of 2086 oligos including controls. The subset has 2074 oligos designed from genes related to signal-transduction plus 6 positive and 6 negative control oligos. The genes were selected from the Alliance for Cellular Signaling web site (www.afcs.org). This gene list was mapped to appropriate human genes in our Human Genome Oligo Set Version 2.0 using the HomoloGene Database at NCBI (www.ncbi.nlm.nih.gov) and then relevant oligos were selected.

Enzymes expressed in liver

The Human Liver Enzyme Subset is composed of 1323 oligos including controls. The subset has 1311 oligos repre-

senting liver-enzyme-related genes plus 6 positive and 6 negative control oligos. The genes in this set all represent enzymes expressed in human liver and were obtained by searching feature table keywords *tissue_type* and *clone_lib* (clone library) with matches to *liver*.

Stress and aging

The Human Stress and Aging Subset is composed of 734 oligos including controls. The subset has 722 oligos representing genes related to stress and aging plus 6 positive and 6 negative control oligos. Among the functional categories included are genes related to heat shock and cytochrome.

Apoptosis

The Human Apoptosis Subset is composed of 380 oligos including controls. The subset has 368 oligos representing apoptosis-related genes plus 6 positive and 6 negative control oligos. Among the categories of genes included are the caspases, tumor necrosis factor ligands and their receptors, and genes related to β -cell leukemia/lymphoma 2- (BCL2).

Operon Microarray Database (OMAD)

Comprehensive information for each subset can be found in our *Human Genome Oligo Set Version 2* OMAD Database (www.operon.com/arrays/omad.php). The information available for each oligo includes gene descriptions, cross-hybridization identity, alignment images, T_m , annotation links to other databases such as UniGene and LocusLink.