

1) Repeat repository

- RepBase Libraries

2) GenBank repository

- cDNAs/Protein coding regions

3) dbEST repository

- Expressed sequence tags (ESTs)

4) cDNA library repository

- Mammalian Gene Collection
- Cancer Genome Anatomy Project
- Integrated Molecular Analysis of Genomes and their Expression

5) ESE repository

- Exonic splicing enhancers (ESEs) identified by RESCUE-ESE

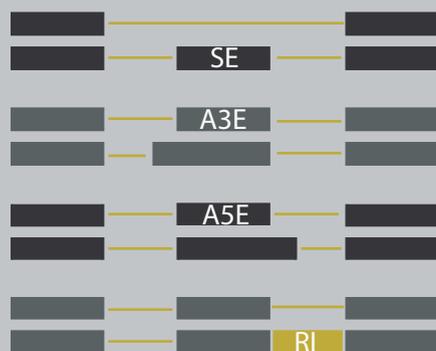
5) ESS repository

- Exonic splicing silencers (ESSs) identified by FAS-ESS

6) ACE repository

- Alternative human-mouse splicing-conserved exons (ACEs) identified by ACEScan

Alternative exon categories



Genomic DNA

Genome assembly and un-annotated gene loci from Ensembl, UCSC, or NCBI

22,200

BLASTMask

Alignment against interspersed repeats and masking of repetitive elements identified in cDNA sequences (rm-cDNAs)

22,200

BLAST

Alignment of rm-cDNA sequences against candidate gene loci and retention of statistically most significant alignment

19,300

mRNAsvsGen

Spliced-alignment of original cDNA sequences against candidate gene locus

18,800

Primary transcript structure models for gene locus with single or multiple cDNA-supported spliced-alignments

BLAST

Alignment of EST sequences against rm-cDNAs with support for gene locus and retention of ESTs with statistically most significant alignment

SIM4

Spliced-alignment of EST sequences against candidate gene locus with cDNA support

Primary transcript structure models for gene locus with cDNA and EST sequence spliced-alignments

runHollywood

Separation of first, last and internal exons and identification of constitutive and alternative internal exon models by an all-against-all transcript comparison

postgresSQL

Constitutive and alternative internal exon database with context-dependent sequence and expression features