Integrated Database of Human Genes and Transcripts



http://www.h-invitational.jp

comprehensive annotation resource for human genes and transcripts

H-Invitational Database (H-InvDB) provides high-quality and comprehensive annotation for human genes, transcripts and proteins. Users can search and obtain valuable information of human genes.

Searching H-InvDB

- Navi
- BLAST

- Simple search
- **Advanced search**
- Chromosome map
- Site search



widely used in various applications in the related industries.

http://hinv.jp/hinv/ahg-db/

H-InvDB is scientific researches and

> Key integrated DB in METI Database portal for Life Science (MEDALS) METI Database portal for Life Science (MEDALS) is a portal site of databases and analysis tools for life science, that were developed by the research projects and

institutions sponsored by METI. H-InvDB is presented as a key integrated database of human genes in MEDALS.

http://medals.jp/etop



What is H-InvDB?

By extensive analyses of all human transcripts, H-InvDB provide curated annotations of human genes and transcripts that include gene structures, alternative splicing isoforms, non-coding functional RNAs, protein functions, functional domains, sub-cellular localizations, metabolic pathways, protein 3D structure, genetic polymorphisms (SNPs, indels and microsatellite repeats) , relation with diseases, gene expression profiling, and molecular evolutionary features , protein-protein interactions (PPIs) and gene families/groups.

H-InvDB consists of three main views, six sub-databases and various related tools,

Protein view Locus view Sub-databases in H-InvDB G-integra H-ANGEL DiseaseInfo Viewer Gene family/group

Applications of H-InvDB



Obtain the detailed annotation for each gene locus **Locus view** [Locus annotation view]



Compare H-InvDB with RefSeq or Ensemble annotations **G-integra** [Genome browser]



Examine alternative splicing pattern of each gene **H-DBAS** [Database of the alternative splicing (AS)]



Examine gene expression profile of each gene **H-ANGEL** [Human ANatomic Gene Expression Library]



Find the microarray probes mapped on each gene

DNAProbeLocator [Web tool to map and browse DNA array probes]



Examine polymorphism (SNP) information of each gene

VarySysDB [Database of annotated human polymorphism]



Find microsatellite markers of each human gene **H-GOLD (GDBS)** [Gene Diversity DataBase System]



Find the disease related-genes located around each genes

DiseaseInfo Viewer [Disease information database]



Examine the gene-disease relationships using test-mining **LEGENDA** [Literature-Extracted GENe-Disease Associations]



Obtain the detailed annotation for each transcript (cDNA or mRNA)

Transcript view [Transcript annotation view]



Obtain the detailed annotation for each protein **Protein view** [Protein annotation view]



Find the interacting partners of each protein

PPI view [Human protein-protein interaction (PPI)]



Investigate human gene family or groups

Gene family/group view [Annotation of gene families/groups]



Compare genes between human and model organisms

Evola [Evolutionary annotation database]



Find the conserved genomic regions between human and model organisms **G-compass** [Comparative genome browser]



Develop applications using H-InvDB data **H-InvDB web service** [SOAP & REST APIs]



Predict function of mRNA or cDNA sequence as a protein TACT [Transcriptome Auto-annotation Conducting Tool]



Find features specific to a given human gene set

HEAT [H-InvDB Enrichment Analysis Tool]

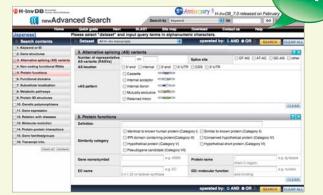
Please refer to "Quick guide" for description of H-InvDB databases and tools. http://hinv.jp/hinv/ahg-db/tools.jsp



Search Navi/New advanced search http://www.h-invitational.jp/hinv/c-search/

Search navigation menu provides links to all searches available in H-InvDB and New advanced search is an extended search system that enables complicated searches by any combination of 16 different search contents.

The search contents: (1)Keyword or ID (2)Gene structure (3)Alternative splicing (4) Non-coding functional RNA (5) Protein functions (6)Functional domains (7)Subcellular localization (8)Metabolic pathway (9)Protein 3D structure (10)Genetic polymorphisms (11)Gene expression (12)Relation to diseases (13)Molecular evolution (14)Protein-protein interaction (PPI) (15)Gene family/groups (16)Transcript information





Let's join our mail magazine!!

H-InvDB mail magazine is to announce information useful to H-InvDB release announcements, introduction of tools, annotation data, etc.

Please join us!! http://hinv.jp/hinv/mag/

H-InvDB PR group

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