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# TissGDB: tissue-specific gene database in cancer

#### Xiaoni Bioinformatics Database 09032020

- The **TissGDB Website** is here.
- Publication Link Nucleic Acids Res. 2018 Jan 4;46(D1):D1031-D1038. doi: 10.1093/nar/gkx850

### Representative Tissue-Specific Gene Expression Resources

- The Human Protein Atlas (HPA)
- Tissue-specific Gene Expression and Regulation (TiGER)
- Genotype-Tissue Expression (GTEx)

#### **Feature**

- 2461 Tissue Specific Genes (TissGenes)
- Across 22 Tissue Types
- Match the 28 Cancer types of The Cancer Genome Atlas (TCGA)

## **Analyses**

- Identified hundreds of TissGenes
- universally **kept** or **lost** tissue-specific gene expression
- cancer type-specific **isoform** expression
- **fusion** with oncogenes or tumor suppressor genes
- markers for protective or risk prognosis

## Seven Categories of Annotations

- 1. TissGeneSummary
- 2. TissGeneExp
- 3. TissGene-miRNA
- 4. TissGeneMut
  - o TissGeneSNV
  - TissGeneCNV
  - TissGeneFusions
- 5. TissGeneNet
  - CePIN
    - Cytoscape
    - R
- 6. TissGeneProg
  - o overall survival, OS
  - o relapse free survival, RFS
- 7. TissGeneClin
  - TissGeneDrug
  - TissGeneDisease

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