

What is circAD?

CircAD (circRNAs associated with diseases) is a comprehensive, manually curated resource for dysregulated circRNAs in disease. This database provides the information including source PMID, genome locus, gene name, method of experimental validation, fold change and significance. In exception to other databases, we have also included the primer details for respective circRNAs available in the publication. For cases where primer details were not available, we have included suggested primers for the circRNAs. CircAD contains 930 circRNAs annotations including 850 circRNAs from human, 71 entries from mouse, 24 from rat and 4 from chicken.

Home page

The screenshot shows the CircAD website home page. At the top left is the CircAD logo and tagline "circRNAs associated with diseases". A "Home button" callout points to the logo. Below the logo is a paragraph describing circRNAs and the database. A "Database statistics" callout points to a "Statistics" box on the right, which lists: "Number of disease related circRNA: 930", "Number of diseases: 139", and "Number of Genes: 594". Below this is a "Data download link" callout pointing to a "Download Database" button with the note "The link will be active once the paper is published." Further down is a "Reference manual" callout pointing to a "User Manual" button with a "Download Manual" link. In the center, a search bar is shown with an "Example query formats" callout pointing to a table of search criteria. At the bottom left, a "Please cite us!" callout points to a citation box.

Home button

Circular RNAs (circRNAs) are transcript isoforms characterized by back-splicing of exon ends to form RNA circles with a closed loop conformation. circRNA's are associated with a number of diseases. circAD is a manually curated database of circRNA's associated with diseases.

Database statistics

Statistics

- Number of disease related circRNA: 930
- Number of diseases: 139
- Number of Genes: 594

Data download link

Download Database

The link will be active once the paper is published.

Reference manual

User Manual

Download Manual

Example query formats


Field	Format
circRNA Name	<circRNA Name> hsa_circRNA_104981, hsa_circ_000018
Gene	gene-<Gene Name> gene-AKT3, gene-LDN2
Locus	<Chr No>-<Start>-<End> chr17:59853761-59861785-; chr7:35142286-35165437-+
Organism	organism-<Organism Name> organism Human, organism Mouse
Disease	disease-<Disease Name> disease-Alzheim, disease-Azemia
ICD-10	icd-<ICD-10> icd-C50, icd-A15

Please cite us!


Cite this resource:
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Search result page



circRNAs associated with diseases



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Home button


Query the database

Click for more detailed information


circRNA Name	Alias	Gene Name	Genome Locus	Organism	Disease
hsa_circRNA_100241				Human	Osteosarcoma
hsa_circRNA_103110				Human	Osteosarcoma
hsa_circRNA_103309		RBMS3		Human	Osteosarcoma
mmu_circRNA_25329				Mouse	Ischemic brain after stroke
ADCY1	hsa_circ_19159	ADCY1		Human	Gliomas
BEND6	hsa_circ_0131980	BEND6		Human	Gliomas
CDR1as/ciRS-7/mmu_circ_0001878		Cdr1	chr11:33307958-33309057+	Mouse	Myocardial infarction
circ-GLI2	hsa_circ_0056288	GLI2	chr2:12170818-121713006+	Human	Osteosarcoma
Ci-ITCH	hsa_circ_0001141, hsa_circ_001763	ITCH	chr20:33001547-33037285-	Human	Esophageal squamous cell carcinoma
circ-ITCH	hsa_circ_0001141, hsa_circ_001763	ITCH	chr20:33001547-33037285-	Human	Colorectal cancer
Ci-ITCH/hsa_circ_0001141	hsa_circ_001763	ITCH	chr20:33001547-33037285-	Human	Bladder cancer
circ7	CDR1as/hsa_circ_0001946		chrX:139865339-139866824+	Human	Colorectal cancer
circ SHPRH		SHPRH		Human	Gliomas
Circ-104916		NEK6		Human	Gastric cancer
circ-BANP		BANP		Human	Colorectal cancer
Circ-CER/circRNA_100876/hsa_circ_0023404	hsa_circ_0023404	RNF121	chr11:33307958-33309057+	Human	Osteoarthritis
circ-Foxo3		Foxo3		Mouse	Breast cancer
circ-Foxo3/hsa_circ_0006404	hsa_circ_0006404	FOXO3	chr6:108984657-108986092.N.A	Human	Myocardial senescence
circ-KLHDC10/hsa_circ_0082333		KLHDC10	chr7:129756284-129762042+	Human	Colorectal cancer
circ-LDLRAD3/hsa_circ_0006988		LDLRAD3		Human	Pancreatic cancer
circ-NTSC2/hsa_circ_0092509		NTSC2	chr10:104850367-104850753-	Human	Osteosarcoma

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Detailed circRNA information



circRNAs associated with diseases



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Home button

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hsa_circRNA_103110					
Gene		Organism	Human		
Genome Locus		Build	hg19		
Disease	Osteosarcoma		CI1		Search all circRNAs with similar ICD codes
DBLink	circBase		28937794		Search all circRNAs with similar PMID codes
Experimental Method					
Sample Type	U2OS, MG63, HOS and 141B Cell lines	Comparison	human osteoblast hFOB1.19 and the human o		Link to the reference paper
Method for Estimation	Quantitative PCR and Microarray	PCR Details	Detailed Experimental Procedure		
Primers (Experimented)	Forward: GAAGCTGGAGACAGACCGA Reverse: GTAGCTCTGATGTCATCCCGA	Statistics	Fold Change : Downregulated p-value : p<0.05		
Citation					
Liu, W, Zhang, J, Zou, C, Xin, X, Wang, Y, Wang, B, Zhao, Z, Tu, J, Wang, X, Li, H, Shen, J, Yin, J (2017) Microarray Expression Profile and Functional Analysis of Circular RNAs in Osteosarcoma. Cell. Physiol. Biochem. 41: 740-745					

Link to the related database

Link to the reference paper

Link to the reference paper

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Suggested primer page

hsa_circ_0000140/hsa_circ_002059			
Gene	KIAA0907	Organism	Human
Genome Locus	chr1:15589165-155895634-	Build	hg19
Disease	Gastric cancer	ICD-10	C16.0
DBLink	circBase	PMID	25689795
Experimental Method			
Sample Type	Tissues	Comparison	101 paired gastric cancer tissues and adjacent noncancerous tissues from surgical gastric cancer patients and 36 paired plain samples from preoperative and postoperative gastric cancer patients
Method for Estimation	Quantitative PCR and Microarrays	PCR Details	Detailed Experimental Procedure
Primers (Predicted)	Suggested Primers Link to the predicted primers		Fold Change : Downregulated pvalue : p<math>0.05</math>
Citation			
Li, P. Chen, S. Chen, H. Ma, X. Li, T. Shao, Y. Xiao, B. Guo, J (2015). Using circular RNA as a novel type of biomarker in the screening of gastric cancer. Clin. Chim. Acta, 444:132-6.			

Product Size	Locus		chr1:15589165-155895634							
	Left Primers	Right Primers	Left GC	Right GC	Left Tm	Right Tm	Left Position	Right Position	Left Size	Right Size
233	AGGCTGGTCTCAAACCTCTG	CCTACCTCCACCTCCCAAAG	55	60	59.31	59.058	69	301	20	20
185	CCAGCTGATAGTGGGCAAC	AGCCTGGTCTCGAATTCCTA	57.895	50	58.214	57.839	152	336	19	20
120	CCGTGCCAGCTGATAGT	ATGAGCCACTATGCCAGCC	61.111	57.895	59.097	59.83	146	265	18	19
148	CCTGGCCCTCCAAAGTG	GCCAGCCCGTATCTATATTC	61.111	50	58.013	58.467	106	253	18	22
226	CGGCCCTCCAAAGTGCTG	CCTGGTCTCGAATTCCTAAAG	61.111	52.381	59.043	58.172	109	334	18	21
170	CTGTGATCCACCTGCCCTC	CCACTATGCCAGCCCGTAT	63.158	57.895	59.837	59.245	91	260	19	19
173	CTGACCTGGTATCCACCTG	ACTATGCCAGCCCGTATCT	60	50	59.826	58.575	86	258	20	20
279	GTCTCAAACCTCTGACTCG	GTCTCACCATGTTCTCAGCC	55	52.381	57.644	58.92	75	353	20	21
146	GTGGGCAACTCTTTCTGGG	AAACTGCCACTCCACCTC	55	55	59.038	59.015	162	307	20	20
192	TCAAACCTCTGACCTCTGGA	AGTCATGAGCCACTATGCCA	50	50	58.3	58.793	78	269	20	20
233	TTGGTCAGGCTGGTCTCAA	TCCACCTCCCAAAGTCTAG	50	55	59.157	59.016	63	295	20	20