

How to search

Gene expression at <https://molecularbrain.org>

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May 9, 2020

It has gene expression from microarray (GEO deposits) and single cell RNA seq studies (Allen Brain Atlas) as well as transcription factor and their targets search capability.

molecularbrain.org

The screenshot displays the website's search interface. At the top, it features the heading "Gene Expression Profiles" in red, followed by a sub-heading "(Microarray)" in red. Below this, there are three blue underlined links: "Human", "Mouse", and "Rat".

Further down, another heading "Gene Expression Profiles" appears in red. Underneath it, the text "Single Cell RNAseq data from Allen Brain Atlas" is shown in red. This is followed by six blue underlined links: "Human Cortex excitatory neurons", "Human Cortex inhibitory neurons", "Human Cortex Nonneuronal cells", "Mouse Cortex excitatory neurons", "Mouse Cortex inhibitory neurons", and "Mouse Cortex Nonneuronal cells".

At the bottom of the screenshot, the heading "Transcription Factors and their Target Genes" is displayed in red, with a single blue underlined link "TFBS" below it.

Click on the link whatever you want to search

In each case, the search button is on the top right

Search Term: Gene Symbol ▼ Search

You can search using a search term from the pull down menu, i.e. GeneID, Symbol, Synonym or Name (description).

Suppose we searched for FGF2 on Human Cortex excitatory neurons for the expression of FGF2

Once the search term is entered, click on search.

The result page will be like this

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Search Results:

Looking for FGF2 in Symbol

Entrez Gene ID	Symbol	Description
2247	FGF2	fibroblast growth factor 2
8074	FGF23	fibroblast growth factor 23
26281	FGF20	fibroblast growth factor 20
26291	FGF21	fibroblast growth factor 21
27006	FGF22	fibroblast growth factor 22

« First < Prev 1 Next > Last »

Gene Symbol Index: **A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**

0 1 2 3 4 5 6 7 8 9

Now you can click on either the geneID or symbol of FGF2 to see the expression value of FGF2 across different excitatory neurons from human cortex as it was determined at Allen Brain Atlas. Their values have been normalized across genes using the value of GAPDH as 100. That way we can compare the studies across different cells and laboratories.

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Symbol:	FGF2					
Entrez Gene ID:	2247					
Description:	fibroblast growth factor 2					
Expression:	Normalized using GAPDH as 100					
	Exc_L2_4_RORB_GRIK1	0.00	Exc_L3_4_RORB_RPS3P6	0.33	Exc_L4_RORB_BHLHE22	0.22
	Exc_L4_RORB_CDC168	0.00	Exc_L4_RORB_CACNG5	0.58	Exc_L4_5_RORB_ASCL1	0.11
	Exc_L4_5_RORB_AIM2	0.00	Exc_L3_LINC00507_CTXN3	2.04	Exc_L3_THEMIS_PLA2G7	18.28
	Exc_L3_5_THEMIS_ELOF1	3.86	Exc_L2_3_LINC00507_RPL9P17	0.16	Exc_L3_LINC00507_PSRC1	0.00
	Exc_L3_5_LINC00507_SLN	0.00	Exc_L3_RORB_CARTPT	1.13	Exc_L3_4_RORB_FOLH1B	3.72
	Exc_L3_4_RORB_PRSS12	1.19	Exc_L3_4_RORB_SEMA6D	0.64	Exc_L3_5_RORB_HSPB3	0.70
	Exc_L5_6_THEMIS_OR1J1	0.00	Exc_L6_THEMIS_EGR3	0.00	Exc_L5_6_THEMIS_TMEM233	0.54
	Exc_L6_THEMIS_LINC00343	0.27	Exc_L3_5_RORB_CMAHP	0.00	Exc_L3_5_RORB_CD24	0.00
	Exc_L4_5_RORB_LCN15	0.41	Exc_L3_5_THEMIS_UBE2F	0.35	Exc_L5_RORB_SNHG7	1.47
	Exc_L4_5_RORB_RPL31P31	0.24	Exc_L4_5_RORB_HNRNPA1P46	0.13	Exc_L4_5_RORB_LINC01474	0.27
	Exc_L4_6_RORB_HPCA	0.00	Exc_L5_6_RORB_LINC00320	1.55	Exc_L5_RORB_LINC01202	0.00
	Exc_L6_THEMIS_C6orf48	11.43	Exc_L5_6_THEMIS_GPR21	14.99	Exc_L5_6_THEMIS_THTPA	30.33
	Exc_L5_6_THEMIS_IL7R	0.43	Exc_L6_FEZF2_VWA2	3.20	Exc_L5_6_FEZF2_ANKRD20A1	3.38
	Exc_L6_FEZF2_FAM95C	2.90	Exc_L6_FEZF2_CPZ	2.41	Exc_L6_FEZF2_P4HA3	2.16
	Exc_L6_FEZF2_SLITRK6	1.67	Exc_L6_FEZF2_TBCC	0.11	Exc_L6_FEZF2_ETV4	13.71
	Exc_L6_FEZF2_TBC1D26	0.55	Exc_L6_FEZF2_KRT17	14.06	Exc_L3_5_FEZF2_ONECUT1	12.89
	Exc_L3_5_FEZF2_DCN	3.34	Exc_L5_FEZF2_MORN2	3.62	Exc_L5_FEZF2_SCN7A	6.54

Gene expression data could be also obtained by clicking on the list of genes (A to Z) in the bottom of the page and selecting the gene of interest from the drop down list.

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0 1 2 3 4 5 6 7 8 9