

Análise de Expressão Diferencial (continuação)

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Roteiro de análise

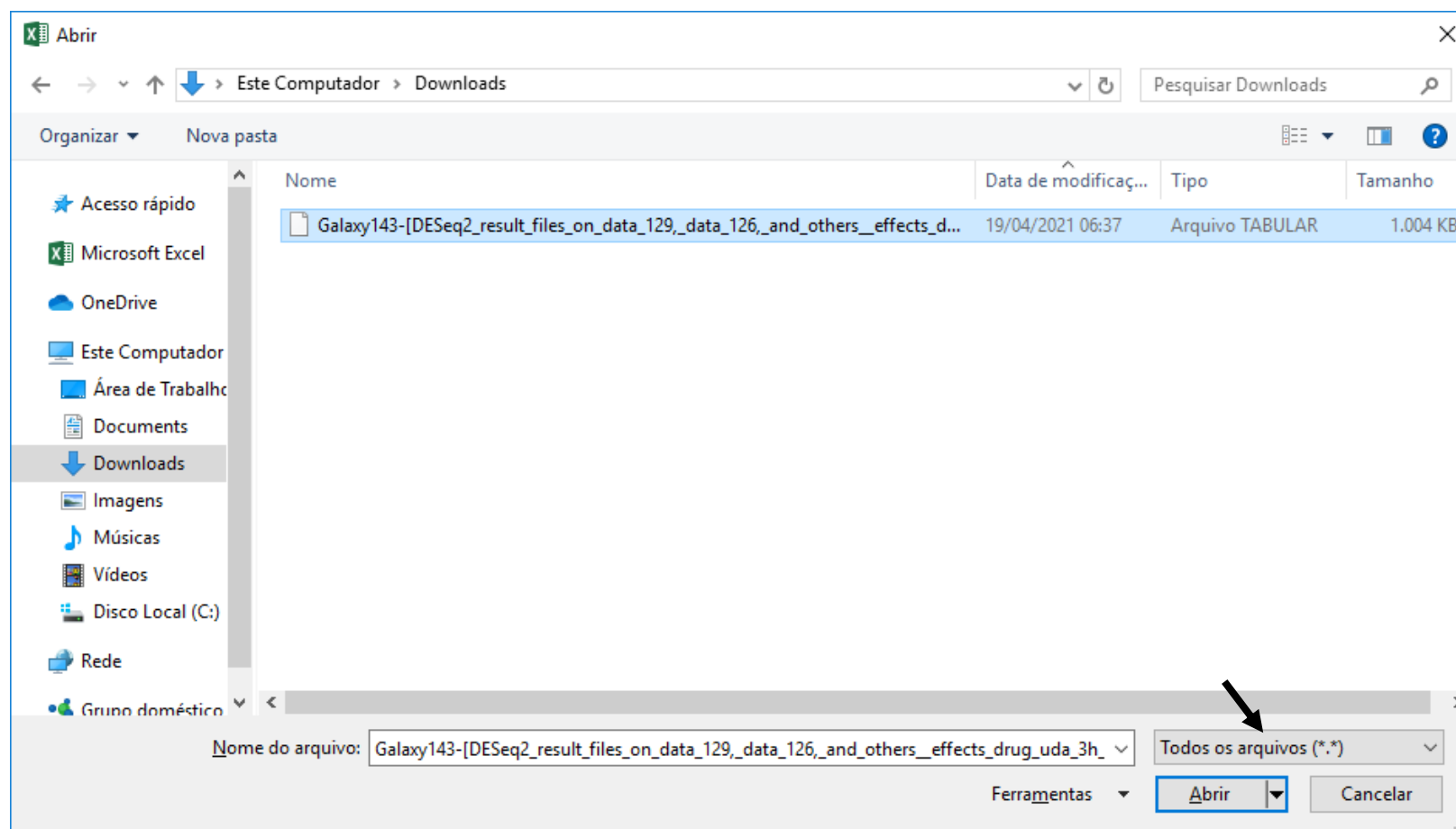
1. Fazer o download dos relatórios DESeq2
2. Abrir arquivos no Excel
3. Aplicar filtros (p_{adj} e \log_2fc)
4. Classificar lista de genes

Download dos resultados

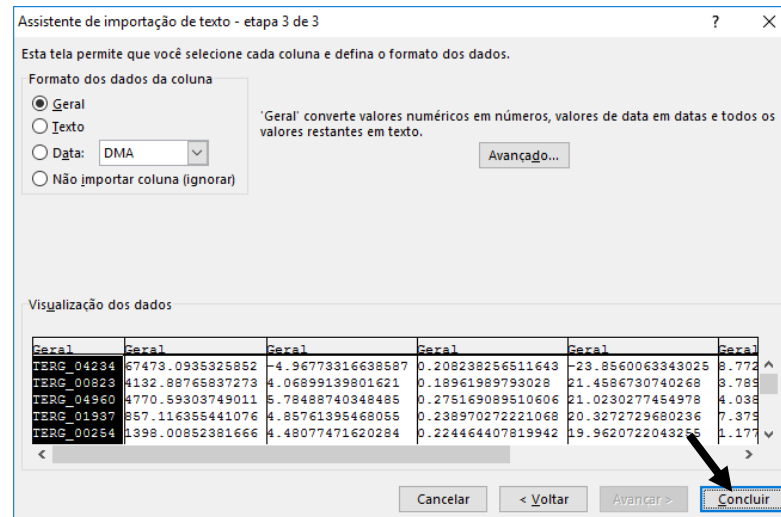
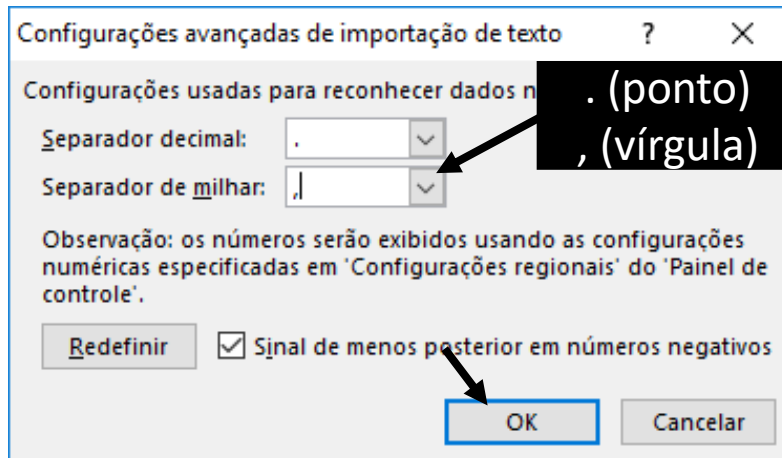
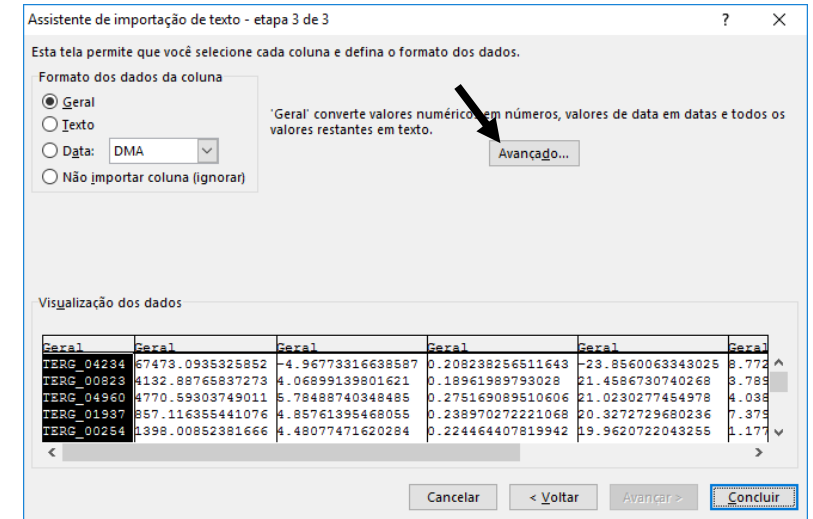
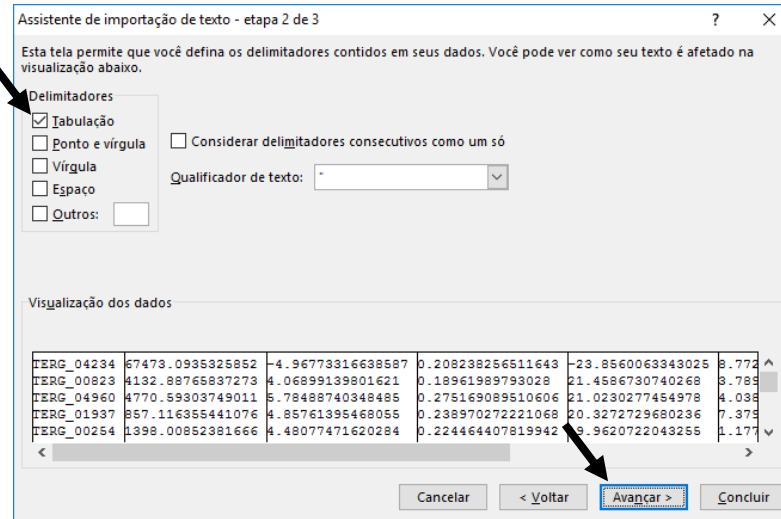
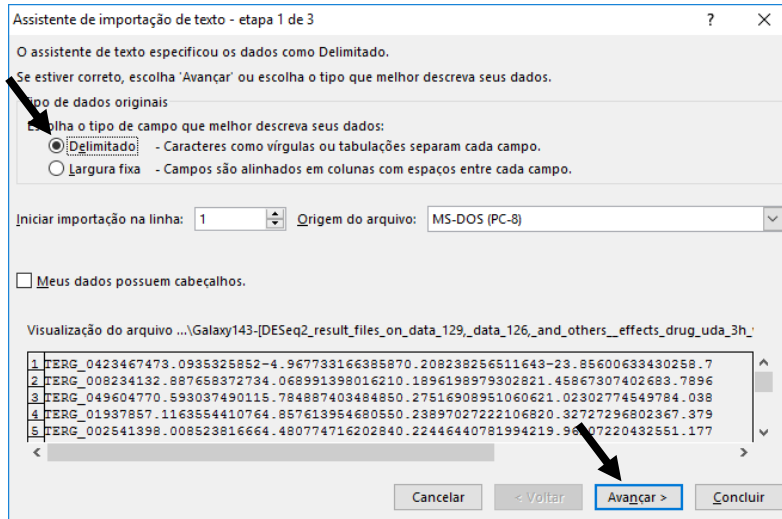
The screenshot shows the Galaxy web interface. The main area displays a list of datasets with columns for ID, name, size, and other metadata. The history panel on the right shows a list of jobs, with the job 'effects_drug_uda_3h_vs_0h' highlighted in a red box. A black arrow points to the 'Download' button in the history panel. Another black arrow points to the 'effects_drug_uda_3h_vs_0h' job entry. The interface includes a navigation menu on the left with categories like 'Tools', 'Get Data', 'Collection Operations', and 'Genomics Analysis'. The top navigation bar includes 'Analyze Data', 'Workflow', 'Visualize', 'Shared Data', 'Help', and 'User'.

ID	Name	Size	Other
TERG_04234	67473.0935325852	-4.96773316638587	0.208238256511643
TERG_00823	4132.88765837273	4.06899139801621	0.18961989793028
TERG_04960	4770.59303749011	5.78488740348485	0.275169089510606
TERG_01937	857.116355441076	4.85761395468055	0.238970272221068
TERG_00254	1398.00852381666	4.48077471620284	0.224464407819942
TERG_08077	3340.49253836308	4.89681919985616	0.247991176722903
TERG_05484	6513.77903450769	3.90227713189188	0.203337079192958
TERG_04232	3638.99663086208	3.79821989809618	0.198382386397525
TERG_03078	19983.8897966338	5.32312644340679	0.288513996573968
TERG_01512	2259.41269421887	3.57475612970528	0.19526123621665
TERG_12530	3911.67702738133	4.00392296410416	0.221348983601569
TERG_07143	4763.34375494071	3.78624381937886	0.216840354498542
TERG_01405	1437.7200729774	5.78750556309314	0.339655558534801
TERG_05621	11715.207019069	3.85582247514341	0.226693925958801
TERG_03483	6693.75976184962	3.43140366618469	0.203884632726433
TERG_03343	1442.27418969119	-3.26396704750338	0.198820518278695
TERG_02747	1322.89955674594	3.26315654491761	0.204136915011971
TERG_04038	3596.14089525809	3.55334456602225	0.222968729053801
TERG_02023	4161.01592916159	-3.79881320939872	0.239856264109474
TERG_03154	13288.0374927027	3.43367452666396	0.221737250141509
TERG_01742	1595.02730840687	3.23975585567722	0.210266151662879
TERG_01784	2790.09704216066	2.91653762325819	0.190186147829383
TERG_07516	240.81849145649	-5.66325605793863	0.371316506928849
TERG_07830	324.252793994781	4.51423142835636	0.296244523002596
TERG_04500	1492.1736296593	3.16538719947916	0.208397452237312
TERG_07659	4705.29046710537	2.96071296180051	0.196400027361186
TERG_06509	3643.64855241637	3.82830305162481	0.254589065610622
TERG_02909	2000.63666467812	3.6658077338571	0.245543036413876
TERG_00162	4498.93228100454	3.73028325741556	0.249919480908355
TERG_08004	1420.88488847186	-4.08815590174838	0.279164473325463
TERG_05363	1991.57594480271	3.95886120136674	0.272442669396636
TERG_02423	722.981589991999	3.21161474145845	0.224362344885373
TERG_01233	1072.35006917928	3.26609711136417	0.232343991145514
TERG_01599	1213.92544601065	-2.9545252360843	0.210354524696148
TERG_12351	871.792090012748	3.1266671836548	0.223175099307617
TERG_06883	2564.7662443609	-3.15312741426125	0.226439037299427
TERG_00911	1272.05775029198	-3.29654407042257	0.237849120334346
TERG_03832	957.665313231076	2.84658814047705	0.206609829869964
TERG_11538	1636.25129894608	2.72093724828664	0.198257989890796
TERG_11928	966.524531905092	3.50670334044019	0.255497736473052
TERG_07919	1511.93960325045	2.85020305994746	0.20816609436779
TERG_07721	1107.15482889117	3.23681520258725	0.236901798412591
TERG_08363	973.856612973878	-2.88644254490119	0.212363692760795
TERG_02918	2101.26616512965	3.01383486413062	0.222231503173946
TERG_07691	3073.43754501511	2.71307769118404	0.201035097838273

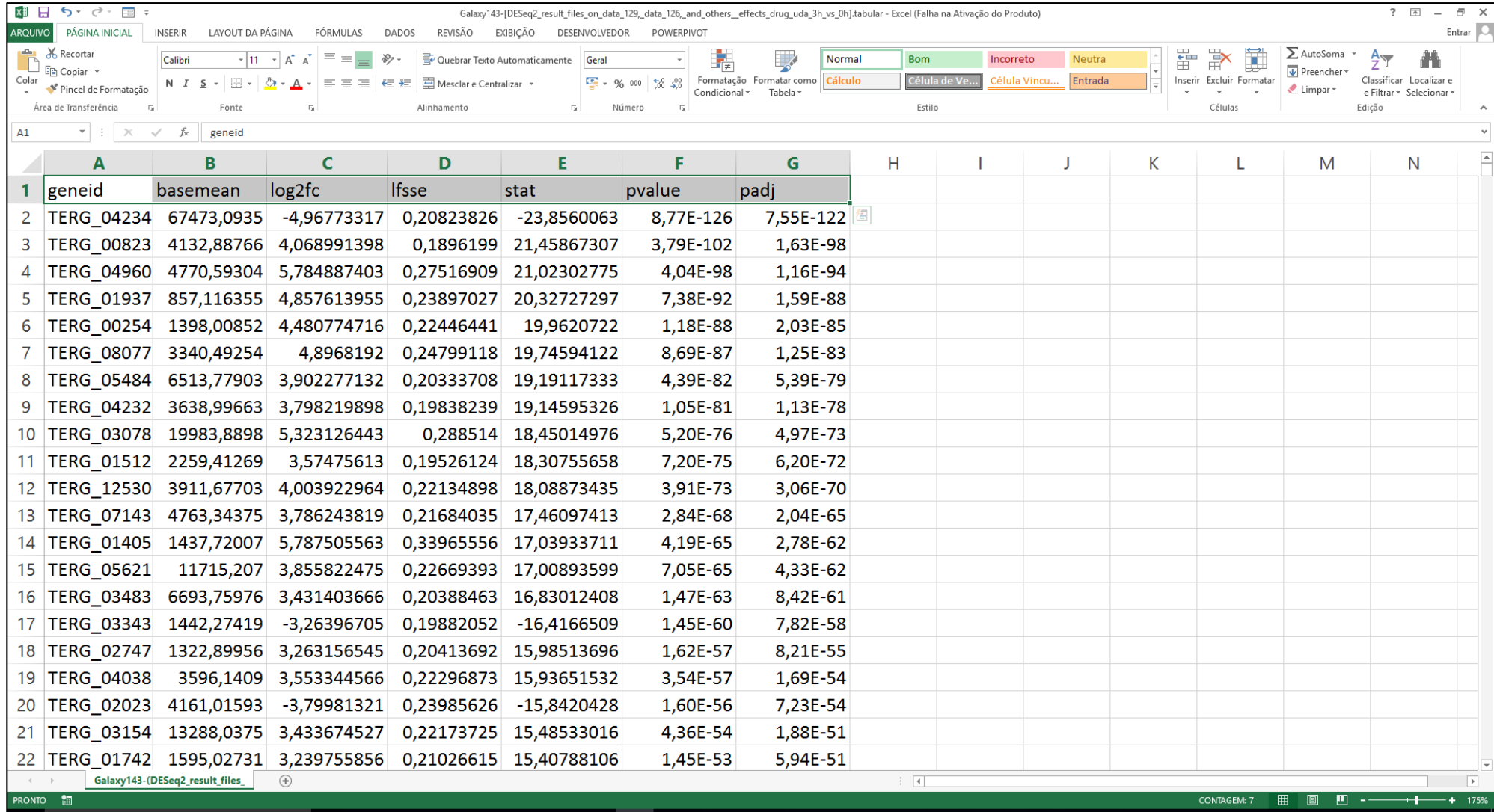
Abrir no Excel



Abrir Relatório no Excel



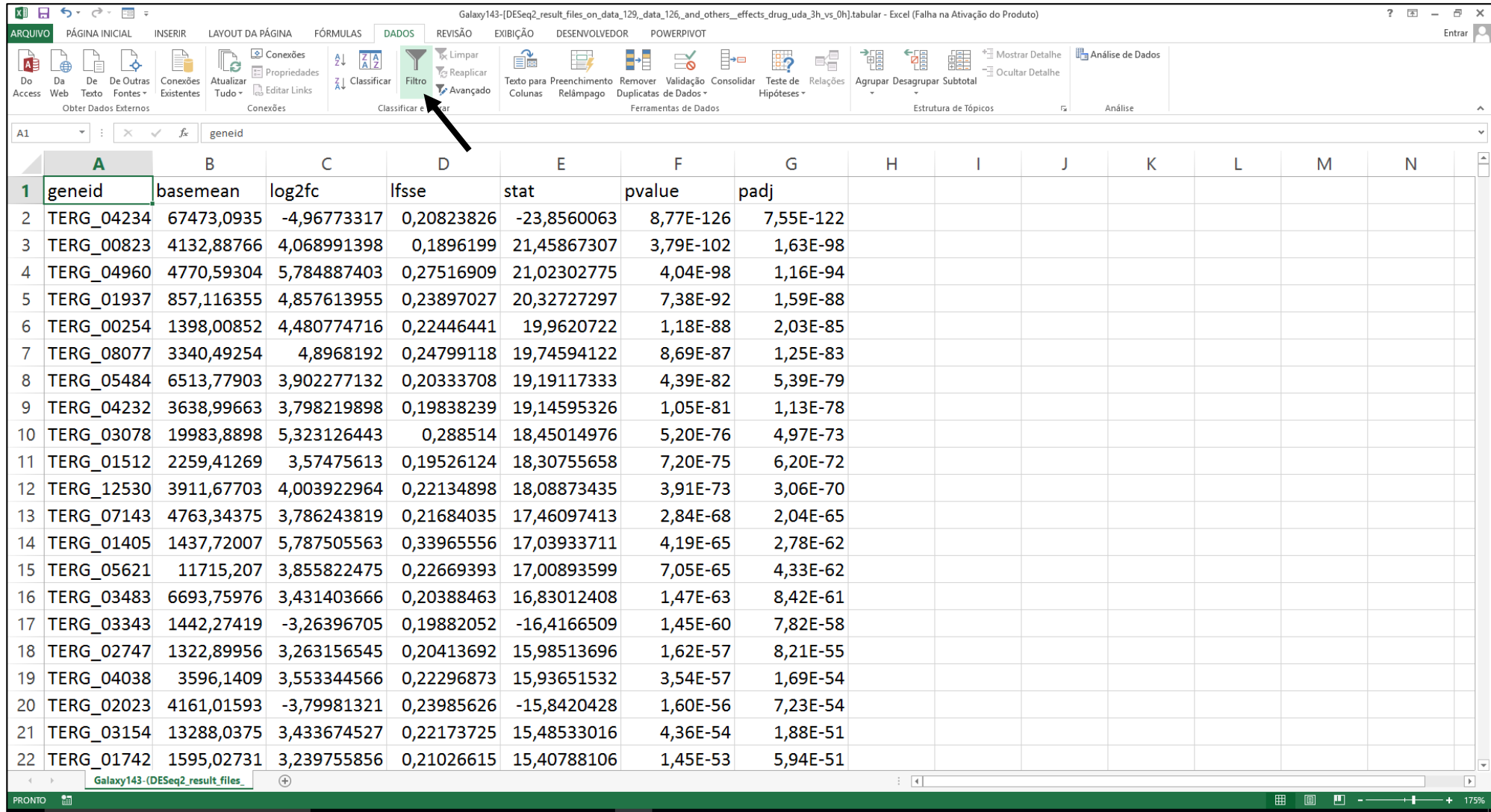
Adicionar linha de cabeçalho



The screenshot shows the Microsoft Excel interface with a data table. The table has 22 rows and 7 columns. The first row is highlighted as a header row. The data is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	geneid	basemean	log2fc	lfsse	stat	pvalue	padj							
2	TERG_04234	67473,0935	-4,96773317	0,20823826	-23,8560063	8,77E-126	7,55E-122							
3	TERG_00823	4132,88766	4,068991398	0,1896199	21,45867307	3,79E-102	1,63E-98							
4	TERG_04960	4770,59304	5,784887403	0,27516909	21,02302775	4,04E-98	1,16E-94							
5	TERG_01937	857,116355	4,857613955	0,23897027	20,32727297	7,38E-92	1,59E-88							
6	TERG_00254	1398,00852	4,480774716	0,22446441	19,9620722	1,18E-88	2,03E-85							
7	TERG_08077	3340,49254	4,8968192	0,24799118	19,74594122	8,69E-87	1,25E-83							
8	TERG_05484	6513,77903	3,902277132	0,20333708	19,19117333	4,39E-82	5,39E-79							
9	TERG_04232	3638,99663	3,798219898	0,19838239	19,14595326	1,05E-81	1,13E-78							
10	TERG_03078	19983,8898	5,323126443	0,288514	18,45014976	5,20E-76	4,97E-73							
11	TERG_01512	2259,41269	3,57475613	0,19526124	18,30755658	7,20E-75	6,20E-72							
12	TERG_12530	3911,67703	4,003922964	0,22134898	18,08873435	3,91E-73	3,06E-70							
13	TERG_07143	4763,34375	3,786243819	0,21684035	17,46097413	2,84E-68	2,04E-65							
14	TERG_01405	1437,72007	5,787505563	0,33965556	17,03933711	4,19E-65	2,78E-62							
15	TERG_05621	11715,207	3,855822475	0,22669393	17,00893599	7,05E-65	4,33E-62							
16	TERG_03483	6693,75976	3,431403666	0,20388463	16,83012408	1,47E-63	8,42E-61							
17	TERG_03343	1442,27419	-3,26396705	0,19882052	-16,4166509	1,45E-60	7,82E-58							
18	TERG_02747	1322,89956	3,263156545	0,20413692	15,98513696	1,62E-57	8,21E-55							
19	TERG_04038	3596,1409	3,553344566	0,22296873	15,93651532	3,54E-57	1,69E-54							
20	TERG_02023	4161,01593	-3,79981321	0,23985626	-15,8420428	1,60E-56	7,23E-54							
21	TERG_03154	13288,0375	3,433674527	0,22173725	15,48533016	4,36E-54	1,88E-51							
22	TERG_01742	1595,02731	3,239755856	0,21026615	15,40788106	1,45E-53	5,94E-51							

Aplicar filtro



The screenshot shows the Microsoft Excel interface with the 'DADOS' (Data) ribbon selected. The 'Filtro' (Filter) icon is highlighted with a black arrow. The spreadsheet contains a table with 22 rows of data. The first row is the header, and the following rows contain numerical data for various genes.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	geneid	basemean	log2fc	lfsse	stat	pvalue	padj							
2	TERG_04234	67473,0935	-4,96773317	0,20823826	-23,8560063	8,77E-126	7,55E-122							
3	TERG_00823	4132,88766	4,068991398	0,1896199	21,45867307	3,79E-102	1,63E-98							
4	TERG_04960	4770,59304	5,784887403	0,27516909	21,02302775	4,04E-98	1,16E-94							
5	TERG_01937	857,116355	4,857613955	0,23897027	20,32727297	7,38E-92	1,59E-88							
6	TERG_00254	1398,00852	4,480774716	0,22446441	19,9620722	1,18E-88	2,03E-85							
7	TERG_08077	3340,49254	4,8968192	0,24799118	19,74594122	8,69E-87	1,25E-83							
8	TERG_05484	6513,77903	3,902277132	0,20333708	19,19117333	4,39E-82	5,39E-79							
9	TERG_04232	3638,99663	3,798219898	0,19838239	19,14595326	1,05E-81	1,13E-78							
10	TERG_03078	19983,8898	5,323126443	0,288514	18,45014976	5,20E-76	4,97E-73							
11	TERG_01512	2259,41269	3,57475613	0,19526124	18,30755658	7,20E-75	6,20E-72							
12	TERG_12530	3911,67703	4,003922964	0,22134898	18,08873435	3,91E-73	3,06E-70							
13	TERG_07143	4763,34375	3,786243819	0,21684035	17,46097413	2,84E-68	2,04E-65							
14	TERG_01405	1437,72007	5,787505563	0,33965556	17,03933711	4,19E-65	2,78E-62							
15	TERG_05621	11715,207	3,855822475	0,22669393	17,00893599	7,05E-65	4,33E-62							
16	TERG_03483	6693,75976	3,431403666	0,20388463	16,83012408	1,47E-63	8,42E-61							
17	TERG_03343	1442,27419	-3,26396705	0,19882052	-16,4166509	1,45E-60	7,82E-58							
18	TERG_02747	1322,89956	3,263156545	0,20413692	15,98513696	1,62E-57	8,21E-55							
19	TERG_04038	3596,1409	3,553344566	0,22296873	15,93651532	3,54E-57	1,69E-54							
20	TERG_02023	4161,01593	-3,79981321	0,23985626	-15,8420428	1,60E-56	7,23E-54							
21	TERG_03154	13288,0375	3,433674527	0,22173725	15,48533016	4,36E-54	1,88E-51							
22	TERG_01742	1595,02731	3,239755856	0,21026615	15,40788106	1,45E-53	5,94E-51							

Aplicar filtro

The screenshot shows an Excel spreadsheet with the following data:

geneid	basemean	log2fc	lfsse	stat	pvalue	padj
TERG_04234	67473,0935	-4,96773317	0,20823826	-23,8560063		
TERG_00823	4132,88766	4,068991398	0,1896199	21,45867307		
TERG_04960	4770,59304	5,784887403	0,27516909	21,02302775		
TERG_01937	857,116355	4,857613955	0,23897027	20,32727297		
TERG_00254	1398,00852	4,480774716	0,22446441	19,9620722		
TERG_08077	3340,49254	4,8968192	0,24799118	19,74594122		
TERG_05484	6513,77903	3,902277132	0,20333708	19,19117333		
TERG_04232	3638,99663	3,798219898	0,19838239	19,14595326		
TERG_03078	19983,8898	5,323126443	0,288514	18,45014976		
TERG_01512	2259,41269	3,57475613	0,19526124	18,30755658		
TERG_12530	3911,67703	4,003922964	0,22134898	18,08873435		
TERG_07143	4763,34375	3,786243819	0,21684035	17,46097413	2,84E-68	2,04E-65
TERG_01405	1437,72007	5,787505563	0,33965556	17,03933711	4,19E-65	2,78E-62
TERG_05621	11715,207	3,855822475	0,22669393	17,00893599	7,05E-65	4,33E-62
TERG_03483	6693,75976	3,431403666	0,20388463	16,83012408	1,47E-63	8,42E-61
TERG_03343	1442,27419	-3,26396705	0,19882052	-16,4166509	1,45E-60	7,82E-58
TERG_02747	1322,89956	3,263156545	0,20413692	15,98513696	1,62E-57	8,21E-55
TERG_04038	3596,1409	3,553344566	0,22296873	15,93651532	3,54E-57	1,69E-54
TERG_02023	4161,01593	-3,79981321	0,23985626	-15,8420428	1,60E-56	7,23E-54
TERG_03154	13288,0375	3,433674527	0,22173725	15,48533016	4,36E-54	1,88E-51
TERG_01742	1595,02731	3,239755856	0,21026615	15,40788106	1,45E-53	5,94E-51

Personalizar AutoFiltro

Mostrar linhas onde:
padj

é menor do que 0,05

E Ou

Use ? para representar um único caractere
Use * para representar uma série de caracteres

OK Cancelar

Aplicar filtro

Excel interface showing a data table with columns: geneid, basemean, log2fc, lfsse, stat, pvalue, padj. A context menu is open over the 'log2fc' column header, with 'Personalizar Filtro...' selected.

geneid	basemean	log2fc	lfsse	stat	pvalue	padj
TERG_04234	6		0,20823826	-23,8560063	8,77E-126	7,55E-122
TERG_00823	4		0,1896199	21,45867307	3,79E-102	1,63E-98
TERG_04960	4		0,27516909	21,02302775	4,04E-98	1,16E-94
TERG_01937	8		0,22087027	20,32727297	7,38E-92	1,59E-88
TERG_00254	1		19,9620722	1,18E-88	2,03E-85	
TERG_08077	3		19,74594122	8,69E-87	1,25E-83	
TERG_05484	6		19,19117333	4,39E-82	5,39E-79	
TERG_04232	3		19,14595326	1,05E-81	1,13E-78	
TERG_03078	1		18,45014976	5,20E-76	4,97E-73	
TERG_01512	2		18,30755658	7,20E-75	6,20E-72	
TERG_12530	3		18,08873435	3,91E-73	3,06E-70	
TERG_07143	4/63,343/5	3,786243819	0,21684035	17,46097413	2,84E-68	2,04E-65
TERG_01405	1437,72007	5,787505563	0,33965556	17,03933711	4,19E-65	2,78E-62
TERG_05621	11715,207	3,855822475	0,22669393	17,00893599	7,05E-65	4,33E-62
TERG_03483	6693,75976	3,431403666	0,20388463	16,83012408	1,47E-63	8,42E-61
TERG_03343	1442,27419	-3,26396705	0,19882052	-16,4166509	1,45E-60	7,82E-58
TERG_02747	1322,89956	3,263156545	0,20413692	15,98513696	1,62E-57	8,21E-55
TERG_04038	3596,1409	3,553344566	0,22296873	15,93651532	3,54E-57	1,69E-54
TERG_02023	4161,01593	-3,79981321	0,23985626	-15,8420428	1,60E-56	7,23E-54
TERG_03154	13288,0375	3,433674527	0,22173725	15,48533016	4,36E-54	1,88E-51
TERG_01742	1595,02731	3,239755856	0,21026615	15,40788106	1,45E-53	5,94E-51

Personalizar AutoFiltro

Mostrar linhas onde:
log2fc

é maior ou igual a 1,5

E Ou

é menor ou igual a -1,5

Use ? para representar um único caractere
Use * para representar uma série de caracteres

OK Cancelar

Classificar

The screenshot shows the Microsoft Excel interface with the 'DADOS' (Data) ribbon selected. The 'Classificar' (Sort) button is highlighted with a black arrow. The 'Classificar' dialog box is open, showing the following settings:

- Adicionar Nível:
- Excluir Nível:
- Copiar Nível:
- Opções...:
- Meus dados contém cabeçalhos:
- Coluna:
- Classificar em:
- Ordem:

The data table below shows the following columns and values:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	geneid	basemean	log2fc	lfsse	stat	pvalue	padj							
2	TERG_04234	67473,0935	-4,96773317	0,20823826	-23,8560063	8,77E-126	7,55E-122							
3	TERG_00823	4132,88766	4,068991398	0,1896199	21,45867307	3,79E-102	1,63E-98							
4	TERG_04960	4770,59304	5,784887403	0,27516909	21,02302775	4,04E-98	1,16E-94							
5	TERG_01937	857,116355	4,857613955	0,23897027	20,32727297	7,38E-92	1,59E-88							
6	TERG_00254	1398,00852	4,480774716	0,22446441	19,9620722	1,18E-88	2,03E-85							
7	TERG_08077	3340,49254	4,8968192	0,24799118	19,74594122	8,69E-87	1,25E-83							
8	TERG_05484	6513,77903	3,902277132	0,20333708	19,19117333	4,39E-82	5,39E-79							
9	TERG_04232	3638,99663	3,798219898	0,19838239	19,14595326	1,05E-81	1,13E-78							
10	TERG_03078	19983,8898	5,323126443	0,288514	18,45014976	5,20E-76	4,97E-73							
11	TERG_01512	2259,41269	3,57475613	0,19526124	18,30755658	7,20E-75	6,20E-72							
12	TERG_12530	3911,67703	4,003922964	0,22134898	18,08873435	3,91E-73	3,06E-70							
13	TERG_07143	4763,34375	3,786243819	0,21684035	17,46097413	2,84E-68	2,04E-65							
14	TERG_01405	1437,72007	5,787505563	0,33965556	17,03933711	4,19E-65	2,78E-62							
15	TERG_05621	11715,207	3,855822475	0,22669393	17,00893599	7,05E-65	4,33E-62							
16	TERG_03483	6693,75976	3,431403666	0,20388463	16,83012408	1,47E-63	8,42E-61							
17	TERG_03343	1442,27419	-3,26396705	0,19882052	-16,4166509	1,45E-60	7,82E-58							
18	TERG_02747	1322,89956	3,263156545	0,20413692	15,98513696	1,62E-57	8,21E-55							
19	TERG_04038	3596,1409	3,553344566	0,22296873	15,93651532	3,54E-57	1,69E-54							
20	TERG_02023	4161,01593	-3,79981321	0,23985626	-15,8420428	1,60E-56	7,23E-54							
21	TERG_03154	13288,0375	3,433674527	0,22173725	15,48533016	4,36E-54	1,88E-51							
22	TERG_01742	1595,02731	3,239755856	0,21026615	15,40788106	1,45E-53	5,94E-51							

Identificar DEG de acordo com filtro aplicado

Up-regulated
Down-regulated



	A	B	C	D	E	F	G
250	TERG_05373	1109,05175	1,528107716	0,25490848	5,994730689	2,04E-09	3,50E-08
251	TERG_05359	439,727645	1,526386291	0,23918966	6,381489478	1,75E-10	3,55E-09
252	TERG_03780	4331,70879	1,521459754	0,52149348	2,917504866	0,00352844	0,01413512
253	TERG_04810	595,617068	1,519293604	0,22945235	6,621390425	3,56E-11	7,95E-10
254	TERG_01162	1478,10361	1,516080786	0,24535125	6,179225729	6,44E-10	1,18E-08
255	TERG_03293	923,148379	1,512233252	0,30786756	4,911960441	9,02E-07	8,96E-06
256	TERG_02265	149,250993	1,511164988	0,30335342	4,981532671	6,31E-07	6,52E-06
257	TERG_00645	2,73334975	1,509294854	0,57171791	2,639929285	0,00829233	0,02888888
258	TERG_01056	815,553303	1,502869485	0,23109582	6,503230859	7,86E-11	1,68E-09
259	TERG_12230	38,3769389	1,5018798	0,4172365	3,599588691	0,00031872	0,00173692
260	TERG_01902	228,504906	-1,50040389	0,2667047	-5,62571227	1,85E-08	2,63E-07
261	TERG_01328	2287,03045	-1,50459531	0,23410878	-6,42690683	1,30E-10	2,69E-09
262	TERG_03708	434,421098	-1,50529945	0,24572712	-6,12589869	9,02E-10	1,62E-08
263	TERG_05090	2520,94328	-1,5071312	0,21008185	-7,17401923	7,28E-13	2,02E-11
264	TERG_00899	1207,41225	-1,5081209	0,20814646	-7,24547954	4,31E-13	1,20E-11
265	TERG_02973	1263,98304	-1,51067689	0,23725262	-6,36737707	1,92E-10	3,88E-09
266	TERG_02353	248,71023	-1,51110977	0,30436207	-4,96484268	6,88E-07	7,02E-06
267	TERG_06267	2004,05142	-1,51630852	0,22184869	-6,83487707	8,21E-12	2,00E-10
268	TERG_00529	76,6678404	-1,51812157	0,37650845	-4,03210491	5,53E-05	0,00036535
269	TERG_02664	1378,28164	-1,51906445	0,25975773	-5,84800475	4,98E-09	7,87E-08
270	TERG_11814	332,6269	-1,51918289	0,33144986	-4,58344702	4,57E-06	3,92E-05
271	TERG_04478	16108,7043	-1,51992011	0,21445622	-7,08732125	1,37E-12	3,67E-11