GenoSplice

EASANA[®] Visualization Module Quick Reference Card

1- Screenshot

`____1





2- Legend

<u>>⊲</u> 2

1	Gene name and project information						
2	EASANA® version						
3	Click on this link to logout.						
4	"transfer icon": access to the "file manager tool"; "envelope icon": send an email to us.						
5	FAST DB [®] Client Edition to get information regarding splicing of gene products.						
6	Probe data: get information regarding probe (Affymetrix IDs, localization, intensities, regulation).						
7	Search another gene using any kind of keywords (need to be "validated", see 10).						
8	Change for another project for which you want to display the probe intensity in EASANA® (need to be "validated", see 10).						
9	Possibility to filter probes based on different kind of criteria (need to be "validated", see 10).						
10	"REFRESH" button to validate choice from 7 and/or 8 and/or 9.						
11	Possibility to include information from EST data (depending on EASANA® version).						
12	Switch color mode (default is <i>absolute</i> : a given color corresponds to a precise fold-change; <i>relative</i> : all color is relative to the highest fold-change).						
13	Switch color mode to Splicing Index (default is expression).						
14	Switch scale mode (default is relative: length of exons and introns are proportional; off: all exons have the same length: see 14').						
15	Pictogram indicating the specie used for the project (Human/Mouse)						
16	Exon/intron structure of the gene (blue boxes correspond to exon and horizontal lines to introns).						
17	Alternative events are displayed in red. In this example, exon 19 is known to be skipped.						
18	Rectangles under the exon/intron gene structure correspond to probe localization.						
19	This track under the gene structure represents the mean of the replicated experiments. Project name, experimental conditions, mean fold-change and p-value at the gene level are indicated here (not always the same value than in the results from the EASANA [®] analysis module: to be faster, visualization makes mean of all the gene probe intensities in the different replicates).						
20	Each bar corresponds to one probe (Note that these tracks are not at the same scale than the gene structure graphics!). Bar height corresponds to probe intensities (bars above correspond to condition2 (Cerebellum), and white bars below to condition1 (Other tissues)). Bar color corresponds to fold-change of probe intensities between condition2 and condition1. Red bars correspond to up-regulated probes, green bars to down-regulated probes, and black bars correspond to probes whose intensity is the same between the two experimental conditions.						
21	As noted previously (20), the scale of these tracks is not the same than the gene structure on the top of the page. The grey track between bars showing intensity in the two conditions allows to retrieve the exonic localization of probes.						
22	Color under probes indicates the "constitutive level": blue means that this region is shared by at least 75% of transcripts; purple means that this region is shared by more at least 50% of transcripts (and less than 75%); red means that this region is shared by less than 50% of transcripts.						
23	We defined high-quality and low-quality probes that can be excluded from the visualization using the corresponding filters (9). For example, some probes target a genomic region that is identical to other chromosomal localizations: these probes are represented as a red-bordered dark-grey rectangle.						



3- Interpretation

Gene level:

Most probes are red, indicating that this gene is more expressed in cerebellum cells compared to cells from the10 other tissues.

, Fold-Change (cerebellum vs 10 other tissues) (+1.23) =2.13E-2) The mean fold-change indicated by the

EASANA[®] visualization module is x1.23 (see figure above).

Exon level:

Probes targeting exon 15 are more red than the other probes, indicating that this exon is more included in transcripts from cerebellum cells compared to transcripts from the 10 other tissues cells. Moreover, exon 15 is already known to be a cassette exon.

Cerebellum vs. Kidney

Gene level: gene is more expressed in cerebellum; Exon level: exon 15 is more included in cerebellum.

Cerebellum vs. Liver

Gene level: there is no variation at the gene level; Exon level: exon 15 is more in cluded in cerebellum.

Cerebellum vs. Muscle

Gene level: there is no variation at the gene level; Exon level: there is no variation at the exon level.



4- FAST DB[®] Client Edition





5- Probe Data

E	ASA	NA		Polybromo 1 Project name: TISSUES (cerebellum vs. others) / Chip: huex (human) / 11 samples EASANA expiration: Unknown					
EASANA®		FAST DB® Client Edition	on Probe Data	Release	2011_2 (Jun. 2011 ‡	Welcome Frederic - <u>loqout</u> 1	2 ?		
Display ESTs OFF									
Gene	Gene GSHG0021765 Save sess			robe Selection: 120 probes	Relative colors				
				-			,		
			100 C	High-Specificity Constitut	SI colors OFF				
Project	Project huex (human) TISSUES (cerebellum vs. others)		ners) 🌲	🗹 Exonic 🛛 🗹 Expressed	d R	Relative scale (<u>?</u>) ON human			
Probe ID	Probeset ID	Transcript Cluster ID	Chromosomal localizat	ion FAST DB localization	FAST DB exon number	Sequence			
1139439	2676304	2676219	chr3(-) 52719834-52719	358 GSHG0021765 -5 - 19	ael	GGCCGGAGGAGCAATAGCAGCAGC	c		
3177974	2676295	2676219	chr3(-) 52713693-52713	717 GSHG0021765 6136 - 6160	e2	AGAGAAGAAGAGCTACCTCCCCTTC	2 F		
2000155	2676295	2676219	chr3(-) 52713674-52713	698 GSHG0021765 6155 - 6179	e2	CCCTTCCAGCAGTGTCAGCGGGGA	c 🗸		
3238778	2676295	2676219	chr3(-) 52713642-52713	566 GSHG0021765 6187 - 6211	e2	ATGGGCACCATTCTGTGTCAACACC	2		
1444063	2676294	2676219	chr3(-) 52712581-52712	605 GSHG0021765 7248 - 7272	e3	GTGCCATGAACTCTATAATACCATC			
5381775	2676294	2676219	chr3(-) 52712567-52712	GSHG0021765 7262 - 7286	e3	ATAATACCATCCGAGACTATAAGGA			
5722217	2676294	2676219	chr3(-) 52712563-52712	587 GSHG0021765 7266 - 7290	e3	TACCATCCGAGACTATAAGGATGAA	•		
5353403	2676294	2676219	chr3(-) 52712521-52712	GSHG0021765 7308 - 7332	e3	TGAGCTCTTCATTAGGGCACCAAAG	;		
682177	2676292	2676219	chr3(-) 52702528-52702	552 GSHG0021765 17301 - 17325	e4	TTCCAGCTTCTTTTTAACAATGCAA			
310396	2676289	2676219	chr3(-) 52696263-52696	287 GSHG0021765 23566 - 23590) e5	TTCTCCTGAATATAAAGCCGCTTGC			
1009760	2676289	2676219	chr3(-) 52696246-52696	270 GSHG0021765 23583 - 23607	e5	CCGCTTGCAAACTCTGGGATTTGTA	4		
5377088	2676289	2676219	chr3(-) 52696233-52696	257 GSHG0021765 23596 - 23620	e5	CTGGGATTTGTACCTTCGAACAAGA	4		
1592567	2676289	2676219	chr3(-) 52696158-52696	182 GSHG0021765 23671 - 23695	e5	TGGGCAAGACAATCAGGGCACAGT	G		
412270	2676286	2676219	chr3(-) 52692270-52692	294 GSHG0021765 27559 - 27583	e6	TTCTTGAAGCCATAGTTGTAGCTAC	:		
4265604	2676286	2676219	chr3(-) 52692255-52692	279 GSHG0021765 27574 - 27598	e6	TTGTAGCTACAAATCCATCAGGACG	i -		
3022047	2676286	2676219	chr3(-) 52692244-52692	268 GSHG0021765 27585 - 27609	e6	AATCCATCAGGACGTCTCATTAGCG	1		
4644832	2676286	2676219	chr3(-) 52692226-52692	250 GSHG0021765 27603 - 27627	e6	ATTAGCGAACTTTTTCAGAAACTGC	:		
771042	2676284	2676219	chr3(-) 52685784-52685	308 GSHG0021765 34045 - 34069	e7	GCAATAATTAAGGAGCCTATAGATC	-		
$(\langle \cdot \rangle)$) Þ)		
Export to CSV									