Facility for Life Science Automation

LISA

How to identify and order FANTOM clones from LISA

1. Be certain of what you want. Know your gene of interest's NCBI Entrez Gene ID and official symbol as well as the length of the coding Open Reading Frame. If you don't...

- o Google 'Entrez Gene' or go directly to http://www.ncbi.nlm.nih.gov/gene and find the correct entry for the murine version of your gene of interest via its symbol or if already known, its NCBI Entrez Gene ID.
- o Find and follow the link to the nucleotide reference entry in section 'mRNA and proteins', locate the section 'cds' under 'features' and then calculate the length of the ORF by subtracting the start position from the stop position.

2a. Search the FANTOM databases for your gene of interest

- o Go to http://arrayresources.imb.uq.edu.au/cgi-bin/other_db_search.pl.
- o Enter a search term (e.g. NCBI Entrez Gene ID or symbol) and highlight the database to search (e.g. FANTOM 1, FANTOM 2, or FANTOM 3).
- o Among the results, find clones where 'CDS Length' matches the actual length of the ORF of your gene of interest. Among those, find the ones labeled as 'Alive'.
- o Write down their corresponding 'Probe ID's.

2b. Obtain additional information about selected FANTOM clones

- o The relevant database has been relocated by RIKEN but it is still there. Instead of being automatically forwarded to the FANTOM 4 website, go to http://fantom.gsc.riken.jp/2/db/search/ or http://fantom.gsc.riken.jp/3/db/search/.
- o Chose 'Any ID Type' as your ID type and use the Probe ID for your clone of interest.
- o At the top of the resulting page you will find links to the DNA and amino acid sequence of your clone which you may compare with the nucleotide reference entry from step 1 and the ORF translation contained therein.
- o The host and vector for a given clone can be identified by the initial letters of the original plate identifier. This is usually the fifth and sixth letter of the plate identifier in your order confirmation; for example, F2CAPX00989 designates 'FANTOM 2' (F2), 'Copy A' (CA) of original plate PX00989. To retrieve a map of that vector, go to http://arrayresources.imb.uq.edu.au/clonefind/Fantom/index.html. All constructs are in variants of pBluescript SK/KS and should be grown with ampicillin or carbenicillin.

3. Order FANTOM clones

- o Go to http://arrayresources.imb.uq.edu.au/Clone_order/ and use the Probe IDs to specify the clones you wish to order. An automated email will then be sent to both you and us, and we will notify you when the clones are ready for pickup.

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More general information about the cDNA resources maintained by LISA is still available at http://arrayresources.imb.uq.edu.au/clonefind/cloneres.html.

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