Guidelines and Instructions for sending your SNP list for the design of a custom panel for the Targeted Genotyping Application

Affymetrix will track and utilize your SNP data to achieve the best results and highest conversion rates for your genotyping project. In order to ensure a safe and secure receipt of your data, please follow these instructions for sending your project data.

Your data formats

Please provide sample information electronically on a CD using the excel spreadsheet (already provided by email) Targeted Genotyping Custom SNP Data Supply Form V4.0. Please label this CD with a unique description of the Project – using the following nomenclature guidelines: You will need to provide, at the minimum, the following information: first and last letters of your institution + the first and last letters of the primary investigator + a short two word description of the SNP panel. Maximum of 16 characters in total.

<table>
<thead>
<tr>
<th>Information required</th>
<th>Example</th>
<th>Additional information</th>
<th>Accepted formats</th>
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</thead>
</table>
| Option 1             | rs145698| 1. Build # of database  
2. Date of SNP search (this is to verify that the latest version of the database is being used) | RefSNP ID Note 1 |
| or Option 2 (Acceptable Alternative) | accgtgcgatcgatgc.. | 1. The 5’ and 3’-side flanking sequence  
Minimum of 30 bases and a maximum of 50 bases both sides of the SNP  
2. Allele in slashed form or IUPAC Code – (eg. A/G or R)  
3. Internal ID | Flanking sequence |
| or Option 3 (Acceptable Alternative) | Human | 1. Build # of database  
2. Date of SNP search (this is to verify that the latest version of the database is being used) | Ensemble Gene ID |

Organism

Human

1. Genus

Note 1- Examples of unacceptable characters: * / ? “” - @ # & ! ~ + = [ ] { } \ | <
SNP Selection Guidelines and Criteria

To assist with your choice of SNP data for your project, we have developed the following set of guidelines. Our aim is to ensure the highest efficiency based on your selected SNPs. The input to our probe design software, the start of our MIP genotyping process, is a list of bi-allelic, single nucleotide polymorphisms together with the flanking sequence of the SNP. The following are guidelines for your selection criteria:

- If you have elected for Option 2 - then flanking sequences should contain no other SNPS, insertions and/or deletions, i.e. the provided flanking sequence should contain only the nucleotides A, C, G, and T. The presence of sequence uncertainties (for example SNPs) in flanking sequences will reduce the likelihood of a successful design.

- If you have elected to use Option 1 or Option 2 you can increase the chances of success by looking at the flanking sequences for sequence uncertainties (such as SNPs, insertions and/or deletions) and consider alternative selections of SNPs i.e. those that do not have these complications in the flanking sequences. Using an up-to-date data base is essential.

- Additionally be aware if you have elected to use Option 1 or Option 2 the design team at Affymetrix will determine the flanking sequences for you and that these sequences will be “blasted” against the most current build of the human genome (obtained from NCBI) to determine that they are unique. Be aware that homologies, which align multiple times, are filtered out. Also we will look for sequence uncertainties listed above which if not filtered out would result in failure to exhibit a high degree of alignment to the genome.

Please send as Next Day Air Delivery to:

Nancy Wantanbe
Assoc Dir, Project Management
Affymetrix, Inc.
7300 Shoreline Court
South San Francisco, CA 94080
USA
Phone +1 (650) 228-7400

Please also ensure that you state your Unique Project Descriptor clearly on the outside of the shipment package.

NOTIFICATION OF DATA SHIPMENT

Please notify Nancy Watanabe by email (nancy_watanabe@affymetrix.com) when your data and information are ready for shipment and give an approximate delivery date.

Nancy Watanabe will acknowledge receipt of your data and report on compatibility of the data received for your project needs.

Should you have any questions or require further clarification, please contact nancy_watanabe@affymetrix.com. We look forward to safe receipt of your data.