

Understanding Assay Information Files

Your Assays-by-DesignSM order arrives with a CD-ROM. This CD-ROM contains a product insert and an Assay Information File (AIF) that contains information for configuring your LIMS system. The AIF is automatically uploaded from the CD-ROM by your LIMS system.

AIF File-Name Conventions

The AIF in your CD-ROM is named so that your LIMS system will automatically upload it. AIF file-name conventions are summarized in the table below, where “xx” is the order number and is ≤10 characters; “yy” is the plate ID number and is ≤10 characters.

Assay	File-Name Convention
Assays by Design SM Service, Gene Expression	AbD_GX_xx_yy.txt
Assays by Design SM Service, SNP Genotyping	AbD_SNP_xx_yy.txt
Assays on Demand TM , Gene Expression Products	AoD_GX_xx_yy.txt
Assays on Demand TM , SNP Genotyping Products	AoD_SNP_xx_yy.txt

Understanding Your AIF

The table below contains a list of all the different types of information (fields) in the AIF. The AIF on your CD-ROM will contain some, but not all, of the following information. To see which information is provided for your product, check the printed data sheet included in your shipment.

AIF Field	Explanation	Example
Customer Name	The name of your organization or institution	Company XYZ
Order Number	Your sales order number	123456789
Ship Date	The date that the product is packaged for shipment	07-Nov-2002
Delivery Number	A unique number for shipment, see packing slip for details	See your packing slip
Part Number	Product number used for ordering the assay	4331183
Product Type	The type of product, which is indicated by the part number	Assays-on-Demand(TM), SNP Genotyping
Assay ID	A unique identifier for the assay	AoD-SNP: C_XXXXXXXXXX_xx Aod-GX: HsXXXXXXXXXX_xx AbD-SNP or AbD-GX: KR03TD-18T
Lot Number	A Unique identifier for the manufacturing batch	41263
Plate Type	96-position tube rack v1	96-position tube rack v1
Plate ID	1D barcode ID of the plate in which the assay is shipped	1234567

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AIF Field	Explanation	Example
Vial Type	10-digit 2D barcoded tube	10-digit barcoded tube
Vial ID	A unique 2D barcode of the assay tube	0004696076
Well Location	The well location of the assay in the associated barcoded plate	B02
Assay Mix Conc.	The concentration of the assay mix (primers and probe(s))	20X
Forward Primer Name	The name of the forward primer given by design software; F designates the forward primer	KR14TD-A22TF
Forward Primer Seq.	The nucleotide sequence of the forward primer	NNNNNNNNNNNNNNNNNN NNN
Forward Primer Conc.	The concentration (in uM) of the forward primer	18
Reverse Primer Name	The name of the reverse primer given by design software; R designates the reverse primer	KR14TD-A22TR
Reverse Primer Seq.	The nucleotide sequence of the reverse primer	NNNNNNNNNNNNNNNNNN NNNNNN
Reverse Primer Conc.	The concentration (in uM) of the reverse primer	18
Reporter 1 Name	The name for the reporter 1 oligo (probe) given by design software; V1 indicates the dye label and the design strand	KR14TD-A22TV1
Reporter 1 Dye	The dye label for reporter 1	VIC
Reporter 1 Sequence	The nucleotide sequence of reporter 1	NNNNNNNNNNNNNNNNNN
Reporter 1 Conc.	The concentration (in uM) of reporter 1	8

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AIF Field	Explanation	Example
Reporter 1 Quencher	A quencher used for reporter 1 of the assay	NFQ
Reporter 2 Name	The Name for the reporter 2 oligo (probe) given by design software; M1 indicates the dye label and the design strand	KR14TD-A22TM1
Reporter 2 Dye	The dye label for reporter 2	FAM
Reporter 2 Sequence	A nucleotide sequence of reporter 2	NNNNNNNNNNNNNNNNNN
Reporter 2 Conc.	The Concentration (in uM) of reporter 2	8
Reporter 2 Quencher	A quencher used for reporter 2 of the assay	NFQ
Context Sequence	The nucleotide sequence surrounding the probe	AoD-SNP: ...NNNNNNNNNN[A1/A2] NNNNNNNNNN... (25 nucleotides on both sides of the SNP site) AoD-GX: ...NNNNNNNNNNNNNNNN... (25 nucleotides including the targeted exon(s))
Design Strand	For AbD-GX and AbD-SNP: Forward - the probe binds to the same strand as the forward primer, Reverse - the probe binds to the same strand as the reverse primer. For AoD-SNP: Forward -the probe contains the same sequence as the context sequence, Reverse - the probe contains the reverse complement sequence as the context sequence.	Forward
Category	Based on Celera Panther Protein Classification, Level 1	Chromosome 9

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AIF Field	Explanation	Example
Category ID	10-digit unique ID for the category name	Chr9
Group	Based on Celera Panther Protein Classification, Level 2	D9S1776-D9S1682
Group ID	10-digit unique ID for the group name	D9S1776
Gene Symbol	LocusLink symbol for associated gene	C5
Gene Name	LocusLink gene name	complement component 5
Chromosome	Chromosome on which gene/SNP is found	9
Species	Genome against which the assay was designed	Homo_sapiens
Target Exons	The exon or exons (as referenced by the public accession number) that are spanned by the probe. For assays that are appended with _m1, the target exons are the exon displayed and the adjacent 3' exon. For an assay with _s1, the target exon in this example would be 2. For an assay with _m1, the target exons would be exons 2 and 3 (the probe would span the 2-3 junction site).	2
NCBI Gene Reference	NCBI transcript ID that is detected by the assay	NM_001735
NCBI SNP Reference	Reference ID from NCBI-dbSNP database	rs17611
Medline Reference	PubMed references for gene	<u>2274082</u>
Celera ID	Unique assay ID in Celera Discovery System (CDS)	hCV11720402

AIF Field	Explanation	Example
Cytogenetic Band	Chromosomal band location of gene (if not available, then chromosome number will be given)	9q34
SNP Type	Type of SNP (based upon Celera Assembly); Acceptor Splice Site, Donor Splice Site, Intergenic/Unknown, Intron, Mis-sense Mutation, Nonsense Mutation, Putative UTR 5', Silent Mutation, UTR 3', UTR 5'	Mis-sense Mutation
Minor Allele Freq - Caucasian	As calculated by SNP genotyping at Applied Biosystems - Caucasian	0.48
Minor Allele Freq - African-American	As calculated by SNP genotyping at Applied Biosystems - African-American	0.14
Minor Allele Freq - Japanese	As calculated by SNP genotyping at Applied Biosystems - Japanese	0.24
Minor Allele Freq - Chinese	As calculated by SNP genotyping at Applied Biosystems - Chinese	0.36
Celera Build Assembly Number	Version of the Celera assembly from which the coordinate position is taken	R26
Location on Celera Assembly	Nucleotide location on the Celera human genome assembly (as referenced)	97035650

Note: Sequence information will be shown as NNNNNNN, except where a SNP is designated as [A1/A2]

Note: AbD-GX refers to Assays-by-DesignSM Service, Gene Expression
 AbD-SNP refers to Assays-by-DesignSM Service, SNP Genotyping
 AoD-GX refers to Assays-on-DemandTM, Gene Expression Products
 AoD-SNP refers to Assays-on-DemandTM, SNP Genotyping Products