

AssayBank: A simple database for tracking QPCR assay performance for small-scale labs.

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Introduction

Quality control is a valuable guide tool for assay performance in real-time QPCR. Even in small laboratories with a limited number of users, it is advantageous to track assay inventories, primer sequences, tissues tested for each assay, assay efficiency for runs and several other parameters. Most quality control software are large and expensive LIMS systems. We have instead developed a simple Filemaker™ relational database, **AssayBank**, to deal with small laboratory needs.

AssayBank features

- Assay inventory: Assay design, sequences, species, source, order and user information.
- Tracks assay performance as PCR efficiency. User logging.
- Import of ABI QPCR assay information.
- Reports by assay or user.
- Runs on a single computer or over a network using either Filemaker access or web browser (PCs: Internet Explorer 6™, Macs: Safari™).

Screen snapshots

Main Screen

Import data from ABI CD

User

Reordering info

Date	Slope	Intercept	gt	Eff	Registered by
05.06.05	-4.0			2,586	admin
01.03.05	-3.90			2,585	admin
25.01.04	-3.56			2,649	admin

Assays reports

Box	Pos	Assay	ABI Assay ID	Gene Name	QC OK
Mouse QPCR	A2	mRpl4		60S ribosomal protein 4	Yes
Mouse QPCR	A3	mTsp		Tata binding protein	Yes
Mouse QPCR		mTest			

Assay standard curves

Assay name	Assay Date	Slope	Efficiency	Issue	Registered by	Comment	Issue
mRpl4	25.01.04	-3.56	2.65		admin		1.1
mRpl4	01.03.05	-3.90	2.58		admin		1.1
mRpl4	05.06.05	-4.00	2.57		admin		1.1

Portal, relational table