

Genedata Screener® Condoseo

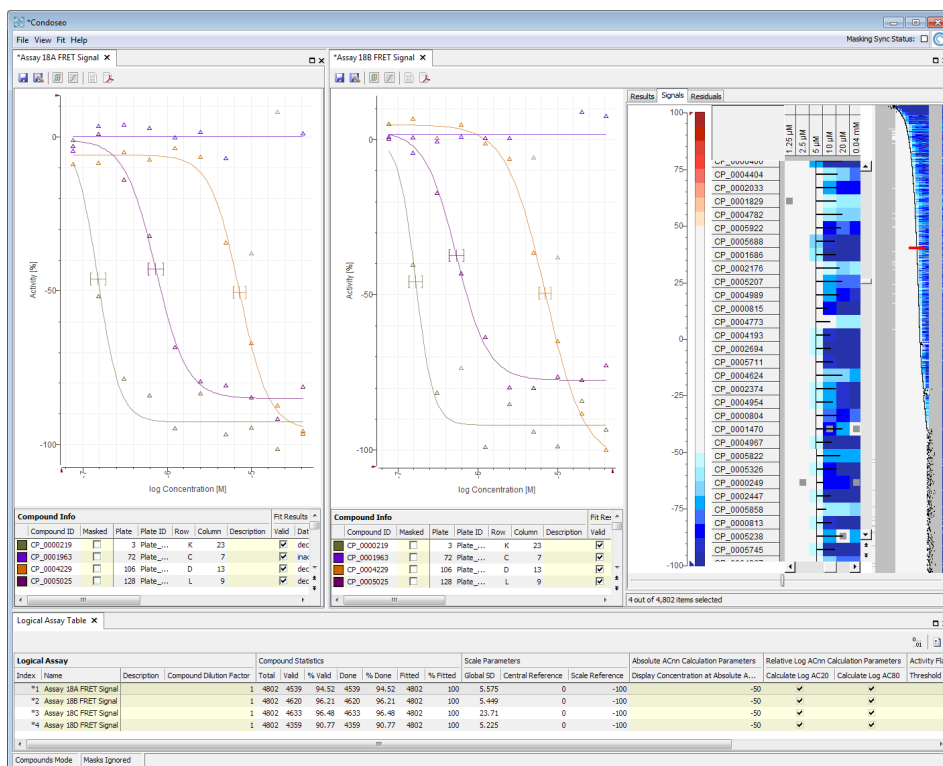
Eliminates Bottlenecks in Dose-Response Curve Fitting

Condoseo sets the standard for fast and efficient Dose-Response Curve (DRC) fitting at laboratories demanding high quality and consistent results. Assays – ranging from a few to 10,000s of compounds and from single to multiple read-outs – are processed in a fraction of the time compared to conventional approaches.

Exceptional Speed and Workflow Support

In seconds, Genedata Screener Condoseo identifies and applies statistically guided, optimal fit settings for the majority of curves in a given data set. Overview displays allow you to visually review and confirm fit validity and results, and complete the processing with just a few mouse clicks. Series of targets (e.g. in panel screens) are processed in parallel. Problematic data are flagged and re-fit with adapted business rules, if necessary.

- ▶ Smart Fitting
- ▶ Superior Heuristics
- ▶ Diagnostics Displays
- ▶ Detailed Fits
- ▶ Fast Results
- ▶ Complete Assays
- ▶ Custom Fitting
- ▶ Parallel Processing



Fully Interactive
(FIG. 1) Parallel processing of two experiments: direct comparison for selected compounds (left and middle). Overview on fits for all compounds for one experiment with detailed view on subselection (right).

Smart Fit Engine

With a single mouse-click, Condoseo performs fit optimization within specifications you provide such as:

- ▶ Automatic selection of the optimal fit model: If required, Condoseo automatically fixes one or more of the Hill parameters.
- ▶ Automatic selection of a constant fit: For compounds without dose dependency.
- ▶ Outlier masking: Condoseo offers different strategies to automatically mask outliers.
- ▶ Business rules: Requirements to fit parameters and fit quality can be specified for an automated validity check.

Fit optimization is so fast – it goes undetected by most users. On average, fits for 1000 compounds are optimized within a second.

Result Overview and Details

Two unique displays allow you – at a single glance – to review the outcome and quality of fits for all compounds. A curve window enables detailed inspection and interaction with measurements and fits for selected compounds. All fit results are available in a customizable table for sorting, annotation, and hiding of selected compounds.

Post-fit Evaluation and Result Reporting

Following the curve fit, oftentimes additional results are required such as efficacy, relative IC₂₀, IC₅₀ or IC₈₀ and many others. Condoseo's *calculated columns* framework supports such post-fit calculations, both from data and fit results paired with user input. Rule-based annotation of fitted compounds is enabled as well.

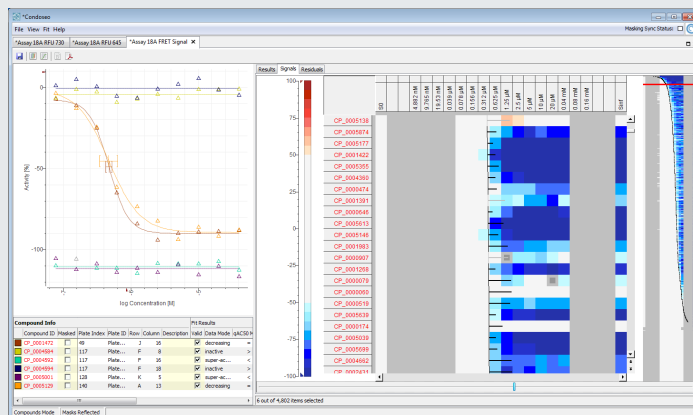
Result reporting is automated yet flexible. You can generate detailed PDF reports focusing on individual compounds or report an overview on a complete campaign.

APIs and Extensions

Condoseo's APIs allow the implementation of customized:

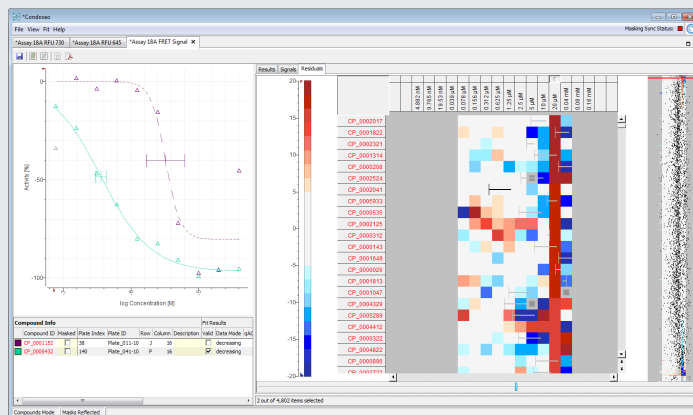
- ▶ Fit models, e.g. Morrison Fit or K_d determination
- ▶ Fit heuristics
- ▶ Post-fitting calculations

In combination with the High Content and Time-Series extensions, Genedata Screener Condoseo displays HCS Images and time traces in the context of DRC fit results.



Smart Fitting

(FIG. 2) In a single pass, Condoseo automatically selects the optimal fit model for compounds with different responses.



Residuals Plot: Find Problematic Compounds

(FIG. 3) Easy identification of compounds with measurements deviating from the fitted curve.

