



## SAVE TIME BY STREAMLINING QUALITY CONTROL OPENLAB CDS MATCH COMPARE

Quick, Rigorous Comparisons between  
Standard and Reference Chromatograms

### Highlights

- Integrates seamlessly with OpenLAB CDS
- Quickly identify and match peaks between two complex samples
- Monitor product content uniformity by peak area comparison
- Save time with automated product-conformity reports
- Increase efficiency by eliminating reference sample reinjection

### Summary

OpenLAB CDS Match Compare automates the time-consuming task of comparing quality control chromatograms. Originally developed to help chromatographers identify small differences between two chromatograms, it is also applicable to a wide range of samples where an overall “A/B” comparison is desired.

By objectively comparing unknown samples to a known standard, it quickly identifies similar chromatographic peaks between two chromatograms and compares areas against predetermined ranges. This quality control process provides higher throughput in a variety of GC and LC applications.

In addition to the quantification of individual components, chromatographers are frequently called upon to compare two different samples—or a sample to a reference—focusing on the overall fingerprint of the chromatograms rather than individual components. Typically, this is achieved by overlaying the chromatograms in order to manually examine the chromatographic traces and judge how well the two chromatograms match. This method provides a subjective comparison, which is reliant on years of training and experience.

Learn more about OpenLAB CDS Match Compare at  
[www.agilent.com/chem/matchcompare](http://www.agilent.com/chem/matchcompare)



## Comparing major components and trace compounds

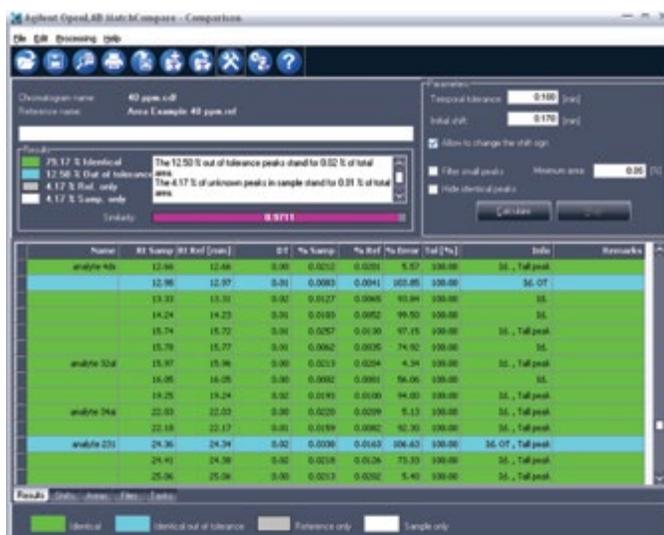
One of the application's most important features is its ability to compare both major components and trace compounds, making it an ideal tool for any screening application where consistency is critical. These include:

- Flavors and fragrances
- Screening of incoming raw materials
- Dyes and volatile colorants
- Adulteration or contamination monitoring
- Peptide mapping
- Detailed hydrocarbon comparisons

You can easily compare the chromatogram of an unknown sample with a reference chromatogram. This offers you a significant advantage by providing quantitation of individual compounds using OpenLAB CDS, and a description of the true nature of the sample with OpenLAB CDS Match Compare.

## Increase your productivity

A powerful and intelligent algorithm allows OpenLAB CDS Match Compare to handle peak distortions, scaling, retention time shifts, and changes in experimental conditions. Using just a single reference chromatogram, samples are quickly and easily compared for quality assurance, reducing the need for frequent reference sample reinjections.



OpenLAB Match Compare comparison screen clearly shows differences between reference and sample chromatograms.



OpenLAB Match Compare's graphical comparison permits quick screening of overall chromatogram match and allows the user to quickly visualize differences.

## Automatic peak matching

Matched peaks are graphically referenced, allowing for retention time shifts of up to several minutes without changing search fidelity. Missing peaks or impurities are represented by different colors both on-screen and in the report, eliminating errors and speeding data review.



The screenshot shows the 'Reference' setup screen in Agilent OpenLAB MatchCompare. It features a table with the following columns: Name, Rt [min], % Area, Height, and Tol [%]. The table lists 30 peaks, with some identified as analytes (4ds, 32al, 34al, 23l). The tolerance for all peaks is set to 100.00%.

Name	Rt [min]	% Area	Height	Tol [%]
	5.60	0.00	4	100.00
	5.72	0.01	433	100.00
	6.20	0.01	469	100.00
	8.75	0.03	638	100.00
	11.30	0.00	2	100.00
analyte 4ds	12.66	0.02	470	100.00
	12.97	0.00	89	100.00
	13.31	0.01	136	100.00
	14.23	0.01	107	100.00
	15.72	0.01	258	100.00
	15.77	0.00	95	100.00
analyte 32al	15.96	0.02	490	100.00
	16.05	0.00	3	100.00
	19.24	0.01	228	100.00
analyte 34al	22.03	0.02	408	100.00
	22.17	0.01	185	100.00
analyte 23l	24.34	0.02	240	100.00
	24.38	0.01	333	100.00
	25.06	0.02	372	100.00
	26.10	0.00	1	100.00
	26.62	0.00	7	100.00

Reference setup screens in OpenLAB Match Compare allow users to name peaks and set relative or absolute tolerances for each individual peak.

## Quickly monitor product quality

With OpenLAB CDS Match Compare, user-defined area percent tolerance limits are identified for each peak of the reference chromatogram and area percent comparisons are reported for each matched peak. These area percent comparisons are checked against user-defined limits and a color-coded report is generated for easy identification of pass/failed peaks.



OpenLAB Match Compare shift analysis screen permits easy evaluation of chromatographic shifts.

## Compatibility with OpenLAB CDS

OpenLAB CDS Match Compare can be installed and used without OpenLAB CDS. Data files that are converted to AIA format are able to be processed with this software. However, when OpenLAB CDS Match Compare is used within OpenLAB CDS, no conversion is required and the comparison process is simplified even further.

## Compatibility with Agilent Data Systems

### OpenLab CDS Match Compare for OpenLAB CDS (p/n M8530AA) compatibility chart

Software	Version	Support Status
OpenLAB CDS ChemStation edition	C.01.04 and greater	Supported
OpenLAB CDS EzChrom edition	A.04.04 and greater	Supported with OpenLAB CDS Match Compare A.01.02 and greater
Multi-technique ChemStation	B.04.03, B.04.03 SP1 and greater	
EzChrom Elite edition	All versions	Not supported
MS software GC/MS ChemStation, MassHunter	All versions	Not supported

Learn more about OpenLAB CDS Match Compare at:

[www.agilent.com/chem/matchcompare](http://www.agilent.com/chem/matchcompare)

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