



THE NBS SOLUTION
THAT'S AS UNIQUE
AS THEY ARE



MSMS Newborn Screening Solutions



A woman with dark hair, wearing a white lab coat, is looking towards the camera with a slight smile. She is holding a green and white laboratory instrument, which appears to be a mass spectrometer or a similar analytical device. The background is a blurred laboratory setting with white cabinets and equipment.

EVERYTHING COMES TOGETHER TO DELIVER MORE SCREENING

Early detection of metabolic and other inherited and rare disorders can improve the quality of life for at-risk babies and their families. With the QSight® MD screening system, we're enabling expanded high-throughput screening for a variety of inborn errors of metabolism (IEMs) with a wide analyte panel, and offering access to Tier 2 chromatography.

Our solution delivers a unique combination of self-cleaning MSMS instrumentation that provides exceptional system uptime, a simple three-step method setup, and easy-to-use database software that simplifies review and analysis.

A FLUENT WORKFLOW, FROM SAMPLE TO RESULTS

SAMPLE COLLECTION

PerkinElmer 226 Sample Collection Device

A 100% pure cotton linter filter paper validated for even and uniform sample distribution



Panthera-Puncher™ 9

Automatically punches DBS samples into microtitration plates – includes a camera for clear viewing, and touchscreen-control software



Barcode Reader

Enables you to scan the datasheet and import all control concentrations directly into the software, saving time and minimizing the risk of human error



SAMPLE WORKLIST

Simplicity™ 3QMD Software

Easy-to-use software with a simple, three-step workflow to get you productive right away – and it delivers results in real time



SAMPLE RESULTS

QSight® MD Screening System

Delivers the key technologies you count on in an MSMS solution – and a host of innovations that set it apart from the rest



NeoBase™ 2 Non-Derivatized MSMS Kit and NeoLSD™ MSMS Kit

Screens for multiple IEMs on the QSight® MD Screening System with high sensitivity and fast assay run time



MSMS Workstation Software

Collects data from one or more instruments into a database that can format flagged-concentration or enzyme activity into a variety of user-definable formats for easy processing



Easy-to-use solution to increase lab efficiency



Automated workflow to reduce hands-on time



Barcode scanning to minimize errors

SOLUTION DESIGNED FOR YOUR WORKFLOW

QSight® 210 MD Screening System

Easy-to-use MSMS
screening system for
high-throughput labs

- Over 1000 injections in a single unattended run
- Designed for use with PerkinElmer newborn screening assays (NeoBase™ 2 Non-Derivatized MSMS Kit, NeoLSD™ MSMS Kit)
- Intended for routine, high-throughput flow-injection analyses



QSight® 225 MD UHPLC-MSMS Screening System

Take your MSMS workflow
to the next level with
Tier 2 chromatography

- Dual Source to run multiple applications without reconfiguring the system
- Designed with class-leading sample capacity for high-throughput newborn screening as well as Tier 2 chromatography
- Optimized UHPLC workflows: Integrated column switcher to easily switch between Tier 1 and Tier 2 runs without replumbing
- Intended for screening and confirmation workflows requiring chromatography



NeoLSD™ MSMS Kit and NeoBase™ 2 Non-Derivatized MSMS Kit may not be available in all countries, such as Canada. Please check availability with your local PerkinElmer representative. NeoBase™ 2 MSMS Kit is not available on the QSight® MD Screening System in the US.

Inside and Out, It's MSMS Done Right

Single Source (QSight® 210)

Features plug-and-play probes

StayClean™ Source

Self-cleaning design delivers exceptional sensitivity and uptime

Mass Filters

Feature high-quality precision rods that deliver highly stable, precise mass filtering

Small Footprint, Vertical Design

Compact 50 cm x 50 cm x 110 cm form factor – no benchtop needed

Dual Source (QSight® 225)

Dual Source with automatic switching – no need to stop to change plumbing.

HSID Interface

Provides low background and reliable results day after day, with equal response at any flow rate

Laminar Flow Ion Guide™

Delivers highly efficient field-free high transmission

Collision Cell

Fast, efficient fragmentation (fast MRMs) shortens analysis times with zero crosstalk

Modular

Plug-and-play design for ease of service



High sensitivity and productivity



High throughput, low maintenance



Compatibility with PerkinElmer assays

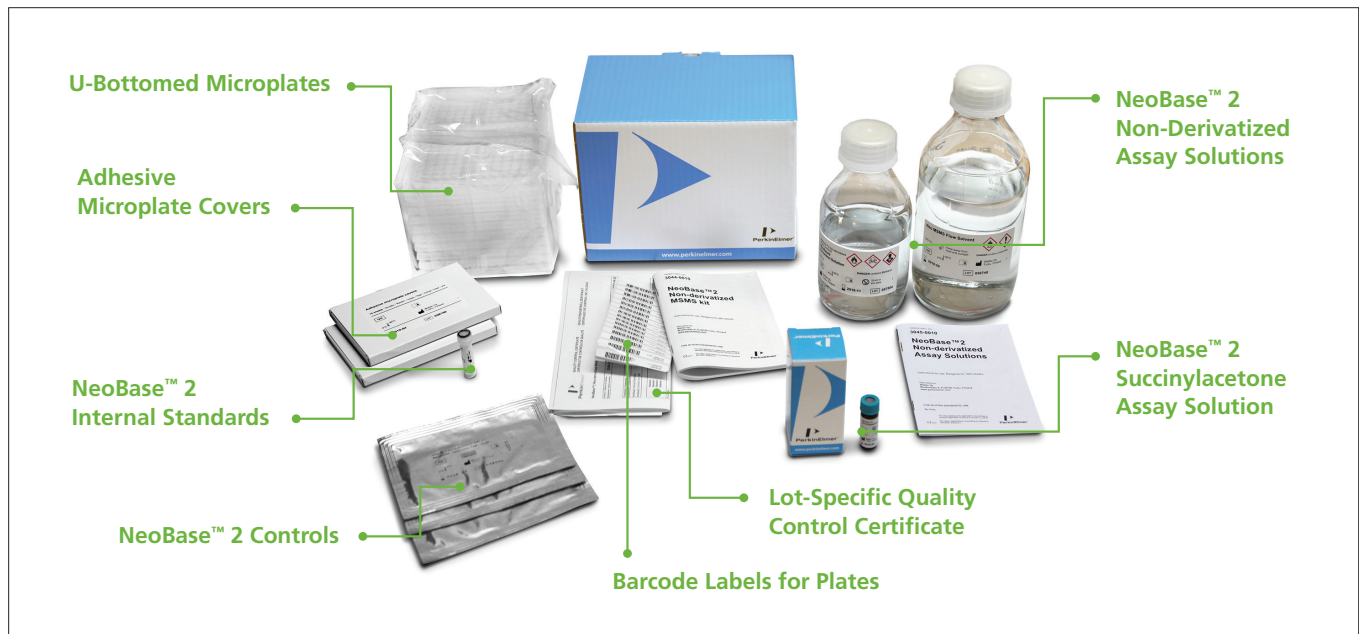
NEXT GENERATION EXPANDED NEWBORN SCREENING



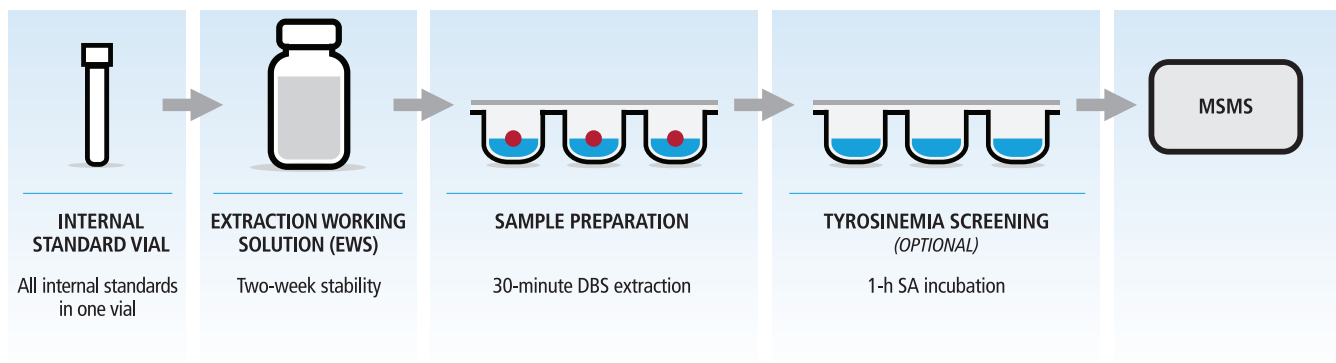
Why NeoBase™ 2 Non-Derivatized MSMS Kit?

DISORDERS		
Amino Acidopathies	Organic Acidemia	Fatty Acid Oxidation Disorders
Purine Metabolism Disorder		Peroxisomal Disorder

- Test for up to 57 analytes including markers for X-ALD and ADA-SCID
- Short sample preparation time
- Automated import of QC targets and IS concentrations by a barcode reader
- Incorporated data analysis software for results analysis and management
- Automatic switch between NeoBase™ 2 Non-Derivatized MSMS Kit and NeoLSD™ MSMS Kit
- Pioneer in AAAC screening with the highest number of reference sites globally using NeoBase™ 2 Non-Derivatized MSMS Kit and NeoLSD™ MSMS Kit



NeoBase™ 2 Non-Derivatized MSMS Kit Workflow



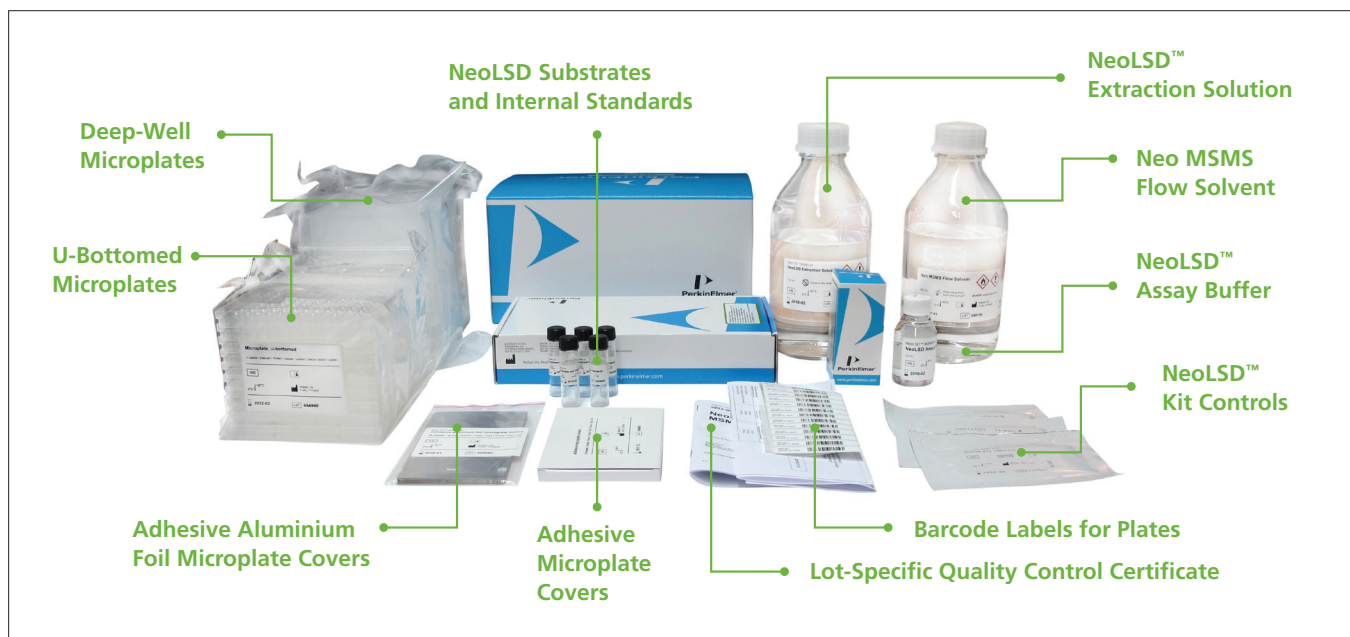
EASY AND EFFICIENT LSD SCREENING



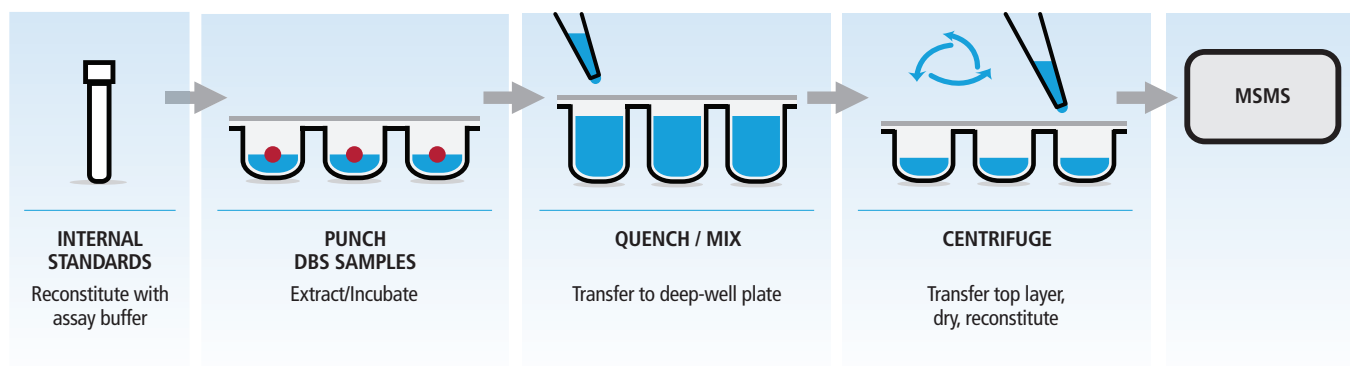
Why NeoLSD™ MSMS Kit?

DISORDERS		
Pompe	MPS-1	Niemann-Pick A/B
Krabbe	Gaucher	Fabry

- Screen for up to six LSDs from a single DBS punch and single incubation
- Less manual pipetting steps by incorporating automated liquid handler
- High analytical precision near screen cutoff
- Wide dynamic range and low retest rate
- Up to 1000 samples per day on a single QSight® MD Screening System
- Flexibility for the expansion of NBS programs by MSMS to include additional LSDs



NeoLSD™ MSMS Kit Workflow

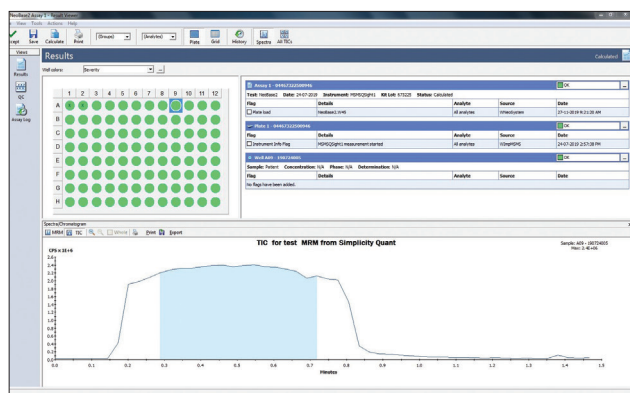


Process More Samples Quickly and Accurately

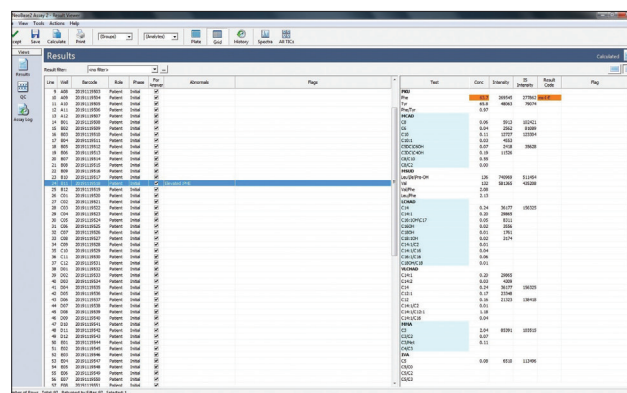
MSMS Workstation software (IVD) provides a user-friendly interface to store data, set limits, review results, and perform QC trend analysis for monitoring laboratory performance. The software enables you to process thousands of results per day, with maximum efficiency, while minimizing transcription or operator errors.

Key Functionalities

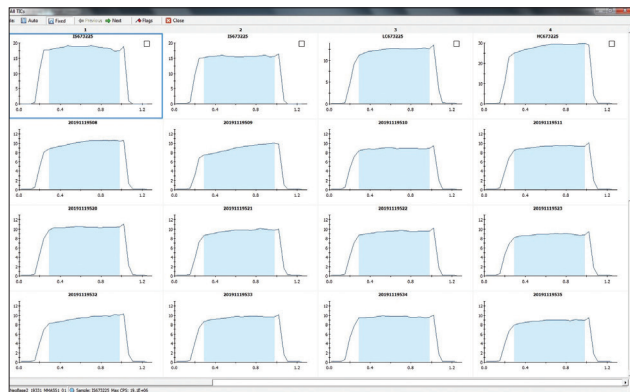
- Download a sample worklist, internal standard, and control target values from kit inserts, directly into the system, to avoid manual transcription errors
- Define flagging rules and cutoffs, with continuous adjustments to cutoff values, to reduce false positive results
- Analyze plate data, review flagged results, and group results by disorder to simplify data review and analysis
- Archive results from one or more instruments into a central database, and/or export results to CLIR or other LIMS, for easy review and retrieval



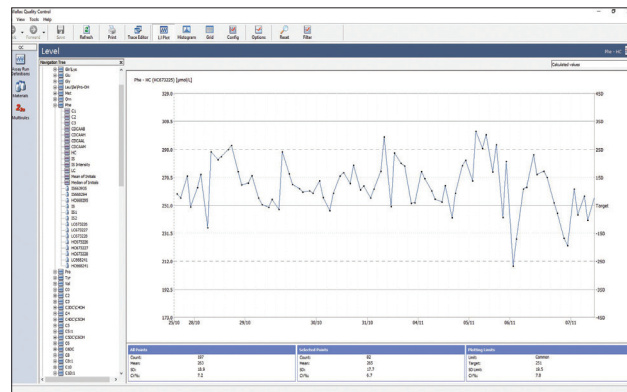
Set sample, internal standard, control limits and ratios to automatically flag results



Interpretation and grouping of results is simple and effective



Quickly view and interpret TIC data for the entire plate



Perform QC trend analysis across one or more instruments to monitor performance

For more information on the instrument, the software, and the kits, visit www.newbornscreening.perkinelmer.com/msms

NeoLSD™ MSMS Kit and NeoBase™ 2 Non-Derivatized MSMS Kit may not be available in all countries, such as Canada. Please check availability with your local PerkinElmer representative. NeoBase™ 2 Non-Derivatized MSMS Kit is not available on the QSight® MD Screening System in the US.

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