



COMPLETE  
SOLUTIONS  
FROM SAMPLE  
TO RESULT

Complete solutions for newborn screening



WE HELP SAVE  
MORE THAN  
70 BABIES  
DAILY

# EARLIER DETECTION WITH COMPLETE RANGE OF SCREENING ASSAYS FOR NBS DISORDERS

Early detection is critical to the treatment of many congenital newborn disorders. PerkinElmer's assays help you find affected children in time and determine the best course of care.

DISORDERS	ANALYTES	INSTRUMENTS					
		GSP®	AutoDELFA®	VICTOR2™MD	TQD MSMS	VICTOR EnLite™	Resolve™
Congenital hypothyroidism	hTSH	✓	✓	✓			
	T4	✓	✓	✓			
Congenital adrenal hyperplasia	17-OHP	✓	✓	✓			
Cystic fibrosis	IRT	✓	✓	✓			
Phenylketonuria	Phenylalanine	✓*		✓			
Galactosemia	GALT	✓		✓			
	TGAL±	✓		✓			
G6PD deficiency	G6PD*	✓		✓			
Biotinidase deficiency	Biotinidase	✓±		✓			
Hemoglobinopathies	Hb Variants						✓
Metabolic and amino acid disorders	AA/AC				✓		
Severe combined immunodeficiency	TREC					✓	

\*Product not available in the USA or Canada  
 ±Product not available in Canada  
 Some of the PerkinElmer products mentioned on this page may not be available in all countries. For information on availability in your country please contact your local PerkinElmer representative.

PerkinElmer is the global market leader in neonatal screening, currently serving customers in more than 90 countries. We are a total solution provider offering complete systems based on a broad range of high quality, validated products, including newborn screening kits, consumables, instruments and software. Our global presence and comprehensive support philosophy mean that our expertise is available to you at all times.

Since 1985, more than 500 million babies have been screened with our products. Every day more than 70 babies around the world get a healthier start to life thanks to the early detection of a serious disorder.

### Analysis and Measurement

Analytical performance is the foundation of effective newborn screening. That is why we manufacture all our instruments and reagents to highest quality and performance standards, and source key components and technology from trusted suppliers.

### Informatics

Newborn screening generates vast amounts of data that require continuous tracking. With effective information management, you can increase processes throughout and reduce costs. Our dedicated informatics solutions for newborn screening laboratories keep vital information flowing from sample to result and beyond.

### Support

Our specialists help you set up and manage your screening process from start to finish. Our ultimate goal is to maximize instrument uptime and ensure that your screening results are accurate.

# FROM SAMPLE TO RESULT. WE COVER THE ENTIRE SCREENING PROCESS

## 1 SAMPLE COLLECTION



**PerkinElmer 226 Sample Collection Device** is a dried blood spot collection card comprised of 100% pure cotton linter filter paper validated for even and uniform sample distribution. PerkinElmer can custom-print and manufacture a device format that meets your specialized newborn screening requirements.

## 2 PUNCHING



**DBS Puncher™ Instrument** is an automated device for punching dried blood spot samples into microtitration plates. The 2-plate capacity puncher is an easy-to-use, robust option for lower capacity screening.



**Panthera-Puncher™9 Instrument** is the next-generation automated dried blood spot sample punching device with an automatically adjusting punch pattern. Thanks to its outstanding ergonomics, enhanced traceability and unique 9-plate capacity, Panthera-Puncher instrument allows you to process sample materials with optimum efficiency and performance.

## 3 ANALYSIS AND MEASUREMENT



**TQD MSMS Screening System** is the system-level tandem mass spectrometry solution for comprehensive screening of metabolic disorders in neonates. Together with the nonderivatized Neobase kit and dedicated screening software, TQD MSMS Screening System delivers exceptional scan speed and sensitivity, as well as the right tools for easy interpretation of screening results.

Disorders: Metabolic and amino acid disorders



**RESOLVE™ test kits** are designed to separate blood by isoelectric focusing (IEF) on a thin agarose gel for the detection of normal and variant hemoglobins, such as sickle cell diseases or thalassemia.

Disorders: Hemoglobinopathies



**EnLite™ Neonatal TREC Instrument** is PerkinElmer's platform for molecular screening of severe combined immunodeficiency (SCID). This complete system includes ready-to-use reagents, a Victor™EnLite instrument and dedicated software. Combined with continuous support and effective training, Enlite Neonatal TREC system stands out as the practical approach to SCID screening.

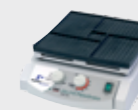
Disorders: Severe combined immunodeficiency



Trinest™ Incubator shaker instrument



DELFIA® Washer-diskremover instrument



DELFIA® Plateshake instrument

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±Product not available in Canada

□The prenatal screening products not available in the USA

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**GSP® Instrument** is the most advanced screening platform for neonatal dried blood spot assays and the system of choice for medium to large laboratories. Performing all assay stages automatically with superior accuracy and traceability, GSP instrument supports our complete range of analytes and employs several measurement techniques for screening of core NBS disorders. From plate loading to results output, GSP instrument offers laboratories outstanding efficiency and confidence throughout the screening process.

Disorders: Congenital adrenal hyperplasia, congenital hypothyroidism, galactosemia, phenylketonuria\*, cystic fibrosis, biotinidase deficiency±, G6PD deficiency\*



**AutoDELFLIA® Instrument** is a fully automatic neonatal screening platform for sensitive and precise quantitation of four assays based on DELFIA chemistry. Combining versatility with ease of use, AutoDELFLIA instrument also supports prenatal screening□. For medium to large laboratories that perform 1,000 – 2,000 DELFIA tests per day.

Disorders: Congenital adrenal hyperplasia, congenital hypothyroidism, cystic fibrosis



**VICTOR2™ D Instrument** is the ideal measurement platform for low volume laboratories. Easy to use and reliable, Victor2 provides start-up screening programs with the right balance of cost-effectiveness and control.

Disorders: Congenital adrenal hyperplasia, congenital hypothyroidism, galactosemia, phenylketonuria, G6PD deficiency\*, phenylalanine, cystic fibrosis, biotinidase deficiency±



For more detailed product information, please visit:  
[www.newbornscreening.perkinelmer.com](http://www.newbornscreening.perkinelmer.com)

INFORMATICS **SPECIMEN GATE®  
SOFTWARE**

As the global leader in newborn screening, PerkinElmer was well-positioned to develop the world's first laboratory information management system specifically intended for newborn screening. Specimen Gate® is the result of years of continuous development, and the product is widely used in all parts of the world.

Specimen Gate® software modules providing control and monitoring tools for the entire screening process:



COMPLETE  
SOLUTION  
EXAMPLES

EVERYTHING YOU NEED FOR  
EFFICIENT NEWBORN SCREENING

PerkinElmer provides you with the tools you need to run a successful and cost-effective neonatal screening program. We offer a broad range of systems and solutions for every type of laboratory from manual low cost alternatives to more sophisticated fully automated solutions.

Some general examples of solutions for different laboratory needs are given below. To find the optimal solution for your laboratory, please contact your local PerkinElmer representative.

FOR LOW VOLUME LABORATORIES

– when costs must be kept down, but performance must not be compromised

FOR LOW TO MEDIUM VOLUME LABORATORIES

– when your panel or volume expands

FOR MEDIUM TO LARGE VOLUME LABORATORIES

– when you value automation and traceability

HIGH VOLUME EXPANDED LABORATORIES

– when high automation, full traceability, seamless integration and instruments with two-way communication are your standards



LABORATORY™

For managing the laboratory processes. Specimen Gate Laboratory Enterprise Edition software allows two-way communication with PerkinElmer punching devices and instruments, and interfaces to third-party instruments too. It models the processes involved in punching; allows electronic gathering of test results from all instruments; flags analytes and disorders based on site-specific logic; and includes both Quality Control data management as well as Cutoff Analysis tools.

- Models the punching
- Gathers test results from all instruments
- Flags analytes and disorders

PATIENTCARE™

For follow up of screen-positive patients and unsatisfactory specimens. Specimen Gate® PatientCare™ software allows users to define and monitor the processes used to follow up a positive determination. Cases are created within PatientCare™ software, allowing users to track the tasks associated with follow up. Users can define procedure templates for each disorder in the test panel. Each template is made up of individual tasks and includes automatic follow-up workflow procedures reminding of necessary actions.

- Every case requiring follow up is monitored
- Electronic updating of tasks performed
- Reminds of necessary actions

SCREENING CENTER™

Specimen Gate® Screening Center™ software focuses on the overall management of newborn screening programs. It allows smooth handling of patient demographics and patient reports; offers the ability to enter and track patient and contact information; and supports creating of business rules to govern the content of patient reports. Ad-hoc querying and statistical information to monitor the performance of the program is provided.












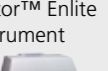
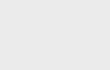


- Easier handling of patient demographics and patient reports
- Entry and tracking of patient and contact information
- Business rules for patient reports

eREPORTS™

Specimen Gate® eReports™ software allows end users to view patient reports online. Remote data entry of patient demographics is available. The application is hosted on a server provided by the customer to ensure that customers retain control over the information to which end-users have access.

Reports created by the laboratory using Screening Center™ and/or PatientCare™ software are available 24h/7d through the secure web connection.

- End-users can use eReports to send demographic data or test results back to the laboratory
- Cost and time savings are immediately realized

SOLUTIONS	RATIONALE	TESTS	SOLUTIONS	RATIONALE	TESTS	SOLUTIONS	RATIONALE	TESTS	SOLUTIONS	RATIONALE	TESTS
 DBS Puncher™ instrument	≤ 2 Parameters 1 Punch size	<ul style="list-style-type: none"> <li>• TSH</li> <li>• PKU</li> </ul>	 Panthera-Puncher™ instrument	Punching up to 9 assays in parallel/ 2 different punch sizes	<ul style="list-style-type: none"> <li>• TSH</li> <li>• 17OHP</li> <li>• IRT</li> <li>• PKU</li> <li>• MCAD</li> <li>• Hb Variants</li> </ul>	 Panthera-Puncher™ 9 instrument	Punching up to 9 assays in parallel / 2 different punch sizes	<ul style="list-style-type: none"> <li>• TSH</li> <li>• PKU*</li> <li>• 17OHP</li> <li>• TGAL±</li> <li>• G6PD*</li> </ul>	 Panthera-Puncher™ 9 instrument	Punching up to 9 assays in parallel 2 punch sizes	<ul style="list-style-type: none"> <li>• TSH</li> <li>• 17OHP</li> <li>• IRT</li> <li>• GALT</li> <li>• Biotinidase*</li> <li>• Expanded screening including PKU</li> <li>• SCID</li> </ul>
 VICTOR 2™ D instrument	Manual platform for all core disorders	<b>VOLUME</b>  600 specimens/day 1200 tests /day	 AutoDELFI® instrument	Automated platform for DELFIA assays	<b>VOLUME</b>  400 specimens/day 2000 tests/day	 GSP® instrument	Consolidated platform for all core assays	<b>VOLUME</b>  400 specimens/day 2000 tests/day	 GSP® instrument	Consolidated platform for all core assays Full automation	<b>VOLUME</b>  600 specimens/day 4200 tests/day
 Specimen Gate™ Essentials software	Browser based informatics software for core newborn screening result management		 TQD MSMS System	Expanded screening for PKU + possible additional parameters		 The GSP workstation software is a stand alone solution for basic data management and quality control	 TQD MSMS System		Comprehensive solution for expanded screening		
 Specimen Gate®	Informatics solution integrating instruments seamlessly, providing control and monitoring tools for the entire screening process including patient reporting and follow-up		 Specimen Gate®	Informatics solution integrating instruments seamlessly, providing control and monitoring tools for the entire screening process including patient reporting and follow-up		 Victor™ Enlite instrument	IVD assay for SCID screening				
<b>BENEFITS</b> Low setup costs, low maintenance costs, reliable results.			<b>BENEFITS</b> Automation of immunoassays and screening for hemoglobinopathies, good traceability of the punching process. Two-way communication between instruments.			<b>BENEFITS</b> High traceability in the sample processing process, consolidated platforms, full automation and high capacity.			<b>BENEFITS</b> Full traceability throughout the process, consolidated platforms, full automation and high capacity. Two-way communication between instruments and easy patient reporting system.		
<b>TO CONSIDER</b> This solutions demands manual assay preparation, which reduces traceability and increases risk of human errors. This laboratory might consider Resolve IEF system for cost effective hemoglobinopathies screening.			<b>TO CONSIDER:</b> AutoDELFI instrument is limited to DELFIA assays. GSP instrument can be considered an option for AD as a fully automated/higher capacity solution compatible with future expansions to include enzymatic assays.			<b>TO CONSIDER:</b> This laboratory might consider including Specimen Gate® Laboratory™ software solution for seamless communication between instruments and better monitoring of the laboratory performance and workflow.					

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SUPPORT

# BETTER SUPPORT. MORE EFFECTIVE PROCESS.

Through our experts in newborn screening, we can help you to create service programs that meet the standards of even the most demanding screening laboratories. Our global presence and holistic understanding of newborn screening enables our screening solutions to share both innovation and know-how effectively.



## Newborn Screening Support

Consultation	Training	Service Excellence	Customer Support
<p>PerkinElmer develops, manufactures and supports a market leading range of instruments, reagents, and consumables to the screening community.</p> <p>Providing unparalleled knowledge and depth of expertise with over 75 years of experience, PerkinElmer is a company you can count on to be there when you need us.</p>	<p>Our training team offers diagnostics product training courses for customers. Training is conducted by product managers and specialists from customer and technical support, software services and R &amp; D. We aspire to meet your training expectations and to give you the best possible training experience.</p>	<p>PerkinElmer's dedicated diagnostics service team comprises trained and certified engineers who have an average of 15 years of experience maintaining PerkinElmer and partner equipment.</p>	<p>Our product specialist and technical support teams provide country and regional support. That's why PerkinElmer is able to provide the best service in the industry.</p>

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