



Rapid results can bring earlier diagnosis and treatment for the most fragile patients

When every minute counts, the NewbornDx™ Advanced Sequencing Evaluation from Athena Diagnostics® delivers rapid, 3- to 7-day results on a targeted 1,722 gene panel—helping to improve outcomes in critically ill newborns by expediting an accurate diagnosis and effective treatment.

The average NICU stay can cost \$76,164 and typically lasts 13.2 days.¹ Shortening that stay by even one day can have significant economic and emotional benefits for families. With its extensive gene panel, the NewbornDx™ Advanced Sequencing Evaluation can help you diagnose a majority of the genetic causes found through an exome or genome in less than half the time, and for a fraction of the cost.²

Includes **80%-100% of disease-causing genes** identified in more than 10 recent exome and genome studies, offering the highest theoretical diagnostic yield of several commercially available panels for NICU patients.²⁻¹⁰

NewbornDx™ can help improve outcomes for your patients by:



Targeted testing for critically ill infants—A clinically actionable panel of 1,722 genes specifically designed for conditions that are often present in NICU/PICU patients



Rapid turnaround time—Written results in 3 to 7 days with a personal phone call from a genetic counselor at time of report



Blood spot cards for specimen types—Patient-friendly sample collection



Proband, duo, or trio testing options—Designed to decrease the number of variants of unknown significance and reduce the need for follow-up testing



Extensive coverage depth—A mean coverage of 330X and 99.4% of bases covered at greater than 20x



Multiple adult sample types—Whole blood, blood spot, or saliva options for parental samples

Athena Insight™: Finding color in a world of gray results

You hear them every day—the questions parents ask. What’s causing my baby’s symptoms? Why did this happen? What are the chances that I can pass this onto other children? The answers aren’t always clear. When it comes to a genetic diagnosis, you want the most reliable, up-to-date, understandable information.

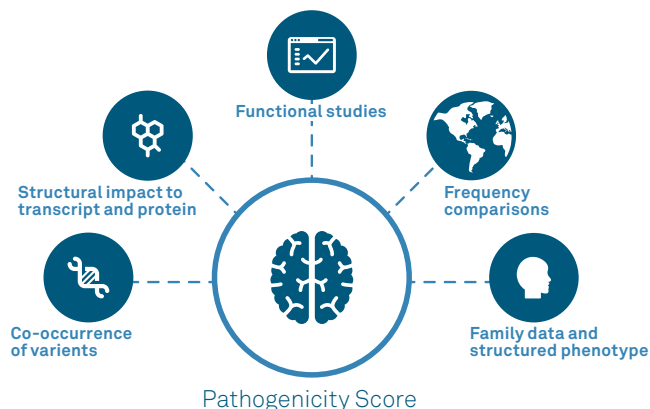
We understand your challenge. We understand your quest for insight. When a variant of unknown significance (VUS) is found, we know that the interpretation is not always straightforward. That’s why we’ve developed Athena Insight™, a process for determining the significance of genetic variants.

Athena Insight™ is powered by a team of highly trained scientists whose primary focus is to assess the pathogenicity of genetic variants identified in patients. To achieve this goal, we conduct a thorough investigation of published research which is then integrated with data from internal and external databases, research collaborations, and clinician-provided phenotypes. A comprehensive and objective assessment of the data is made by utilizing a standardized, rules-based algorithm resulting in a final pathogenicity assessment score. Close collaboration among our scientists, genetic counselors, and clinical laboratory

directors ensures that all the relevant information has been collected and systematically analyzed in order to provide the most clinically informative result.

We understand your goals, and we work with you. Our high-touch approach optimizes the value of modern science and human insight. We look for color in a world of gray results.

For more information on the variant assessment process, please visit AthenaDiagnostics.com/AthenaInsight



Test specifications

Test code	Test name	Preferred specimen	Sample specifications	Turnaround time	Specimen stability
2052	NewbornDx™ Advanced Sequencing Evaluation, Proband	Dried blood spot (DBS) card, Whole Blood in lavender-top (EDTA) tubes	One DBS card with 5 spots (2 spot min) 2 mL whole blood (1 mL min)	3–7 days	Dried Blood Spot: Room Temperature: 2 days Refrigerated: 2 years Frozen: Unacceptable Whole Blood: Room Temperature: 10 days Refrigerated: 10 days Frozen: Unacceptable
2053	NewbornDx™ Advanced Sequencing Evaluation, Family Member	Dried blood spot (DBS) card, Whole Blood in lavender-top (EDTA) tubes, Saliva	One DBS card with 5 spots (2 spot min) 2 mL whole blood (1 mL min) One Oragene OGD 500 kit	Not applicable	Dried Blood Spot: Room Temperature: 2 days Refrigerated: 2 years Frozen: Unacceptable Whole Blood: Room Temperature: 10 days Refrigerated: 10 days Frozen: Unacceptable Saliva: Room Temperature: 1 year Refrigerated: Unacceptable Frozen: Unacceptable

Please contact one of our genetic counselors regarding specific acceptance policies and specimen requirements for prenatal testing at 800-394-4493.

Athena Diagnostics offers a comprehensive genetic test menu. Customers in the US and Canada please call toll free **1.800.394.4493** or visit us online at AthenaDiagnostics.com/NewbornDx

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Test codes may vary by location. Please contact your local laboratory for more information.

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