variantyx

DCVXTYCRF003R

Genomic Unity®
Test Requisition Form

Patient Name		Affix barcode label of Patient's sample here
Date of Birth	___/___/_____	

Form instructions

- All tests are performed on a PCR-free DNA sequencing backbone. Specify the testing to be performed on pages 1-2 and sign at the bottom of page 2
- Provide patient's clinical information on page 3
- Provide patient demographics on page 4

○ Expedited analysis is requested

Comprehensive Analyses: Select when you want to include all genes in the analysis

○ Genomic Unity® Whole Genome Analysis ○ Singleton ○ Trio (Family) ○ Huntington-related STR analysis: *HTT, JPH3*	Provides sequence and del/dup analysis of the nuclear genome, sequence and deletion analysis of the mitochondrial genome with heteroplasmy as well as tandem repeat expansion analysis of *AFF2, AFF3, AR, ATN1, ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, C9ORF72, CACNA1A, CNBP, CSTB, DIP2B, DMPK, FMR1, FXN, NOP56, NOTCH2NLC, PHOX2B, PPP2R2B, TBP, TCF4*. Optionally add on tandem repeat expansion analysis of *HTT* and *JPH3*. See full test specs: https://www.variantyx.com/whole-genome-analysis.
○ Genomic Unity® Exome Analysis ○ Singleton ○ Trio (Family) ○ Huntington-related STR analysis: *HTT, JPH3* To optionally include analysis of the mitochondrial genome, additionally order Genome Unity® Mitochondrial Genome Analysis.	Provides sequence and del/dup analysis of the exome as well as tandem repeat expansion analysis of *AFF2, AFF3, AR, ATN1, ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, C9ORF72, CACNA1A, CNBP, CSTB, DIP2B, DMPK, FMR1, FXN, NOP56, NOTCH2NLC, PHOX2B, PPP2R2B, TBP, TCF4*. Optionally add on tandem repeat expansion analysis of *HTT* and *JPH3*. To optionally include analysis of the mitochondrial genome, additionally order Genome Unity® Mitochondrial Genome Analysis. See full test specs: https://www.variantyx.com/exome-analysis.
○ Genomic Unity® Mitochondrial Genome Analysis	Provides sequence and deletion analysis of the mitochondrial genome with heteroplasmy. See full test specs: https://www.variantyx.com/mito-genome-analysis.
○ Genomic Unity® Constitutional Genome-Wide Copy Number Variant Analysis	Provides constitutional (genome-wide) analysis of copy number variants (CNVs). See full test specs: https://www.variantyx.com/cnv-analysis.

Neurology Targeted Analyses: Select when you want to limit the analysis to a pre-selected list of genes

Ataxia Analyses	○ Genomic Unity® Comprehensive Ataxia Analysis	Provides sequence and del/dup analysis of 51 genes related to ataxia as well as tandem repeat expansion analysis of *ATN1, ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, CACNA1A, FXN, NOP56, PPP2R2B, TBP*. See full test specs: https://www.variantyx.com/ataxia-analysis.
	○ Genomic Unity® Ataxia Repeat Expansion Analysis	Provides sequence, del/dup and tandem repeat expansion analysis of ataxia-associated genes *ATN1, ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, CACNA1A, FXN, NOP56, PPP2R2B, TBP*. See full test specs: https://www.variantyx.com/ataxia-repeat-analysis.
	○ Genomic Unity® CACNA1A Gene Analysis	Provides sequence, del/dup and tandem repeat expansion analysis of the *CACNA1A* gene associated with certain ataxias and early infantile encephalopathy and . See full test specs: https://www.variantyx.com/cacna1a-analysis .
	○ Genomic Unity® FXN Gene Analysis	Provides sequence, del/dup and tandem repeat expansion analysis of the *FXN* gene associated with Friedreich's ataxia. See full test specs: https://www.variantyx.com/fxn-analysis.
Epilepsy Analyses	○ Genomic Unity® Epilepsy Analysis	Provides sequence and del/dup analysis of genes related to seizures as well as tandem repeat expansion analysis of *AFF2*, *AFF3*, *CSTB*, *DIP2B*, *FMR1*. See full test specs: https://www.variantyx.com/epilepsy-analysis .
	○ Genomic Unity® CSTB Gene Analysis	Provides sequence, del/dup and tandem repeat expansion analysis of the *CSTB* gene associated with progressive myoclonic epilepsy type 1A. See full test specs: https://www.variantyx.com/cstb-analysis .
ID Analyses	○ Genomic Unity® Intellectual Disability Analysis	Provides sequence and del/dup analysis of genes related to intellectual disability as well as tandem repeat expansion analysis of *AFF2*, *AFF3*, *DIP2B*, *FMR1*. See full test specs: https://www.variantyx.com/intellectual-disability-analysis .
	○ Genomic Unity® MECP2 Gene Analysis	Provides sequence and del/dup analysis of the *MECP2* gene associated with Rett syndrome, atypical Rett syndrome and/or learning disabilities. See full test specs: https://www.variantyx.com/mecp2-analysis.
Motor Neuron Analyses	○ Genomic Unity® Motor Neuron Disorders Analysis	Provides sequence and del/dup analysis of genes related to motor neuron disorders as well as tandem repeat expansion analysis of *AR, C9ORF72*. See full test specs: https://www.variantyx.com/motor-neuron-analysis.
	○ Genomic Unity® AR Gene Analysis	Provides sequence, del/dup and tandem repeat expansion analysis of the *AR* gene associated with partial androgen insensitivity syndrome, hypospadias, or spinal and bulbar muscular atrophy. See full test specs: https://www.variantyx.com/ar-analysis.
	○ Genomic Unity® SMN1/2 Gene Analysis	Provides full sequence and del/dup analysis of the SMN1 gene as well as determination of SMN copy number for assessment of severity of spinal muscular atrophy (SMA). See full test specs: https://www.variantyx.com/smn-analysis.
Movement	○ Genomic Unity® Movement Disorders Analysis ○ Huntington-related STR analysis: *HTT, JPH3*	Provides sequence and del/dup analysis of genes related to movement disorders as well as tandem repeat expansion analysis of *ATN1, ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, C9ORF72, CACNA1A, FXN, NOP56, NOTCH2NLC, PPP2R2B, TBP*. Optionally add on tandem repeat expansion of *HTT* and *JPH3*. . See full test specs: https://www.variantyx.com/movement-analysis.

Patient Name		Affix barcode label of Patient's sample here
Date of Birth	___/___/_____	

Neuromuscular Analyses	○ Genomic Unity® Neuromuscular Disorders Analysis	Provides sequence and del/dup analysis of genes related to neuromuscular disorders as well as tandem repeat expansion analysis of the *CNBP* and *DMPK* genes. See full test specs: https://www.variantyx.com/neuromuscular-analysis.
	○ Genomic Unity® Muscular Dystrophy Analysis	Provides sequence and del/dup analysis of genes related to muscular dystrophies. See full test specs: https://www.variantyx.com/md-analysis.
	○ Genomic Unity® DMD Gene Analysis	Provides sequence and del/dup analysis of the *DMD* gene associated with Duchenne and Becker muscular dystrophy. See full test specs: https://www.variantyx.com/dmd-analysis.
	○ Genomic Unity® Neuropathies Analysis	Provides sequence and del/dup analysis of genes related to neuropathies. See full test specs: https://www.variantyx.com/neuropathies-analysis.
	○ Genomic Unity® Neurology Analysis ○ Huntington-related STR analysis: *HTT, JPH3*	This test provides sequence and del/dup analysis of neurology associated genes as well as tandem repeat expansion analysis of *AFF2, AFF3, AR, ATN1, ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, C9ORF72, CACNA1A, CNBP, CSTB, DIP2B, DMPK, FMR1, FXN, NOP56, NOTCH2NLC, PPP2R2B, TBP*. Optionally add on tandem repeat expansion analysis of *HTT* and *JPH3*. See full test specs : https://www.variantyx.com/neurology-analysis

Additional Targeted Analyses: Select when you want to limit the analysis to a pre-selected list of genes

○ Genomic Unity® Cardiac Channelopathies Analysis	Provides sequence and del/dup analysis of *ANK2, CASQ2, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNQ1, RYR2, SCN5A* genes associated with insufficiency or hyperactivity of cardiac ion channels. See full test specs: https://www.variantyx.com/cardiac-channel-analysis.
○ Genomic Unity® Endocrinology Analysis	Provides sequence and del/dup analysis of genes associated with endocrinology disorders. See full test specs: https://www.variantyx.com/endocrinology-analysis.
○ Genomic Unity® Lynch Syndrome Analysis	Provides sequence and del/dup analysis of *EPCAM, MLH1, MSH2, MSH6, PMS2* genes associated with Lynch syndrome. See full test specs: https://www.variantyx.com/lynch-syndrome-analysis.
○ Genomic Unity® Mitochondrial Disorders Analysis	Provides sequence and del/dup analysis of nuclear mitochondrial genes and sequence and deletion analysis of the mitochondrial genome with heteroplasmy. See full test specs: https://www.variantyx.com/mitochondrial-analysis.
○ Genomic Unity® PTEN Gene Analysis	Provides sequence and del/dup analysis of the *PTEN* gene associated with hamartoma tumor syndrome. See full test specs: https://www.variantyx.com/pten-analysis.

Custom Analysis: Select when you want to specify the genes analyzed

○ Genomic Unity® Custom Analysis List the gene(s) to be included in the analysis. If more room is required, please attach a separate page:	This test provides sequence, del/dup and (when relevant) STR analysis of the specified genes. See the list of genes that can be selected from for the analysis: https://www.variantyx.com/custom-analysis.

Optional Reflex:

○ Reflex to Genomic Unity® Whole Genome Analysis	In the event that a targeted analysis is not positive, automatically reflex to Genomic Unity® Whole Genome Analysis. See description in Comprehensive Analyses section at the top of page 1. See full test specs: https://www.variantyx.com/whole-genome-analysis.
○ Reflex to Genomic Unity® Exome Analysis	In the event that a targeted analysis is not positive, automatically reflex to Genomic Unity® Exome Analysis. See description in Comprehensive Analyses section at the top of page 1. See full test specs: https://www.variantyx.com/exome-analysis.

Healthcare Provider's Statement

By my signature below, I attest that I am the referring physician, an authorized healthcare provider for the patient, or procurator thereof and this testing is medically necessary for diagnosis and/or treatment of the patient. I attest that the patient (or guardian) has been appropriately consented about the test including possible results and outcomes, has been given the opportunity to ask questions about the testing and/ or seek genetic counseling, and agrees to allow an independent genetic counselor facilitated through a third party, DNAVisit, to provide pre-test and/or post-test genetic counseling, if required by the insurer and/or referring institution. I attest that the patient (or guardian) has voluntarily consented to testing performed by Variantyx for diagnostic purposes through both oral and written consent.

Healthcare provider signature _____ **Date** _____

variantyx

DCVXTYCRF003R

Genomic Unity®
Test Requisition Form

Patient Name		Affix barcode label of Patient's sample here
Date of Birth	___/___/_____	

Please specify the patient's phenotypes using 1° to indicate the most important primary phenotypes and 2° to indicate less important secondary phenotypes. ICD-10 codes must be specified here and/or in attached clinical notes.

Clinical Information

ICD-10 Code(s)*

Patient Phenotypes

	1°	2°	Phenotype	Age of onset
Development/Behavior	☐	☐	Developmental regression	
	☐	☐	Global developmental delay	
	☐	☐	Intellectual disability	
	☐	☐	Delayed fine motor development	
	☐	☐	Delayed gross motor development	
	☐	☐	Delayed speech and language development	
	☐	☐	Speech articulation difficulties	
	☐	☐	Autism spectrum disorder	
	☐	☐	Self-injurious behavior	
	☐	☐	Stereotypy	
Brain Anomalies	☐	☐	Brain atrophy	
	☐	☐	Cerebellar hypoplasia	
	☐	☐	Cortical dysplasia	
	☐	☐	Encephalocele	
	☐	☐	Holoprosencephaly	
	☐	☐	Hydrocephalus	
	☐	☐	Lissencephaly	
	☐	☐	Molar tooth sign	
	☐	☐	Periventricular leukomalacia	
	☐	☐	Polymicrogyria	
Neurological	☐	☐	Abnormal nerve conduction velocity	
	☐	☐	Ataxia/Spasticity	
	☐	☐	Chorea	
	☐	☐	Dystonia	
	☐	☐	Foot dorsiflexor weakness	
	☐	☐	Headache	
	☐	☐	Neurodegeneration	
	☐	☐	Motor axonal neuropathy	
	☐	☐	Pes cavus	
	☐	☐	Reduced deep tendon reflexes	
	☐	☐	Seizures	
	☐	☐	Sleep apnea	
	☐	☐	Stroke-like episodes	
	☐	☐	Tremor	
	☐	☐	Vocal cord paresis	
Muscular	☐	☐	Dysphagia	
	☐	☐	Exercise intolerance	
	☐	☐	Hypertonia	
	☐	☐	Hypotonia	
	☐	☐	Muscle fasciculations	
	☐	☐	Muscle wasting	
	☐	☐	Muscle weakness	
	☐	☐	Muscular dystrophy	
	☐	☐	Myotonia	
Metabolic	☐	☐	Aciduria	
	☐	☐	Abnormal CPK circulation concentration	
	☐	☐	Decreased plasma carnitine	
	☐	☐	Elevated serum alanine aminotransferase	
	☐	☐	Increased serum pyruvate	
	☐	☐	Ketosis	
	☐	☐	Lactic acidosis	
Endocrine	☐	☐	Adrenal hyperplasia	
	☐	☐	Adrenal insufficiency	
	☐	☐	Cushing syndrome	
	☐	☐	Diabetes Mellitus Type I	
	☐	☐	Diabetes Mellitus Type II	
	☐	☐	Hypothyroidism	
	☐	☐	Hypoparathyroidism	
	☐	☐	Hypogonadism	
	☐	☐	Paraganglioma	

	1°	2°	Phenotype	Age of onset
Constitutional	☐	☐	Cleft lip	
	☐	☐	Cleft palate	
	☐	☐	Syndactyly	
	☐	☐	Polydactyly	
	☐	☐	Failure to thrive	
	☐	☐	Macrocephaly	
	☐	☐	Microcephaly	
	☐	☐	Obesity	
	☐	☐	Short stature	
	☐	☐	Tall stature	
Ophthalmology/Auditory	☐	☐	Blindness	
	☐	☐	Cataracts	
	☐	☐	Coloboma	
	☐	☐	External ophthalmoplegia	
	☐	☐	Optic atrophy	
	☐	☐	Ptosis	
	☐	☐	Rod-cone dystrophy	
	☐	☐	Visual impairment	
	☐	☐	Aminoglycoside-induced hearing loss	
	☐	☐	External ear malformation	
	☐	☐	Hearing loss	
Cardiac	☐	☐	Arrhythmia	
	☐	☐	Cardiomyopathy	
	☐	☐	Syncope	
	☐	☐	Tetralogy of Fallot	
Gastrointestinal	☐	☐	Abdominal wall defect	
	☐	☐	Aganglionic megacolon	
	☐	☐	Constipation	
	☐	☐	Diarrhea	
	☐	☐	Elevated hepatic transaminases	
	☐	☐	Gastroesophageal reflux	
	☐	☐	Gastroschisis	
	☐	☐	Omphalocele	
	☐	☐	Pyloric stenosis	
	☐	☐	Tracheoesophageal fistula	
	☐	☐	Vomiting	
Genitourinary	☐	☐	Abnormal renal morphology	
	☐	☐	Ambiguous genitalia	
	☐	☐	Cryptochidism	
	☐	☐	Hydronephrosis	
	☐	☐	Hypospadias	
	☐	☐	Renal agenesis	
Skeletal	☐	☐	Abnormal vertebral morphology	
	☐	☐	Clubfoot	
	☐	☐	Craniosynostosis	
	☐	☐	Multiple joint contractures	
	☐	☐	Scoliosis	
Skin	☐	☐	Abnormality of connective tissue	
	☐	☐	Abnormality of skin pigmentation	
	☐	☐	Abnormality of temperature regulation	
	☐	☐	Icthyosis	

Other phenotypes

Address: 1671 Worcester Rd, Suite 300 Framingham, MA 01701 | **Phone:** 617-209-2090 | **Fax:** 617-433-5024 | **Email:** info@variantyx.com | **Website:** www.variantyx.com

variantyx

DCVXTYCRF003R

Genomic Unity®
Test Requisition Form

Patient Name		Affix barcode label of Patient's sample here
Date of Birth	___ /___ /_____	

Patient Information

First Name	Last Name	MI	DOB ___ /___ /_____	Gender ○ Male ○ Female
Address			ID / MR#	
City	State	Zip Code	Ethnicity ○ African/African American ○ Latino ○ Ashkenazi Jewish ○ East Asian ○ Other: ○ European ○ South Asian _____	
Phone	Email			

Ordering Healthcare Provider

First Name	Last Name	Title	NPI #
Facility Name			Phone
Facility Address			Fax
City	State	Zip Code	Email

Additional Report Recipients

Name	Phone	Fax	Email
Name	Phone	Fax	Email

Billing Information

○ Insurance Billing

Insurance Company	Policy #	Group #
Policy Holder First Name	Policy Holder Last Name	Policy Holder DOB ___ /___ /_____
Who is the Policy Holder? ○ Patient ○ Spouse ○ Parent	Policy Holder's Employer	
Employer's Address		

○ Institutional Billing	○ Patient Payment
An invoice will be sent to the institution listed above. Please contact us for alternate billing.	An invoice will be sent to the patient email provided. Insurance will not be billed.

Patient's Sample Information

Sample Type ○ Saliva ○ Assisted saliva ○ Blood ○ Genomic DNA ○ Other _____	Sample Will Be Collected ○ In-house ○ By Variantyx	Collection Date* ___ /___ /_____

*Note that the collection date is not the same as the date of service for test billing purposes. For more information, please see CMS guidelines.