

ZENTRALE LISTE RINGVERSUCHE
(Ringversuchsregister gem. § 79 Abs. 1 Zi 3 GTG)
Ringversuche zur externen Qualitätssicherung in der molekularen Gendiagnostik

Legende Methoden:

IHC	Immunohistochemistry
FISH	Fluorescence in situ hybridization
NGS	Next generation sequencing
S	Sequencing
RS	RNAseq
RT	RT-PCR
CNV	Copy number variation
MET	Methylation analysis
SB	Southern blot
X	Sonstige, unbestimmt, gemischt

Anbieter:

BVDH	Berufsverband Deutscher Humangenetiker; Deutschland https://www.bvdh-ringversuche.de/
CAP	College of American Pathologists; USA https://www.cap.org/
CF Network	Cystic Fibrosis European Network; Belgien http://cf.eqascheme.org/
EMQN	European Molecular Genetics Quality Network; UK https://www.emqn.org/
EQUALIS	External quality assurance in laboratory medicine in Sweden; Schweden https://www.equalis.se/en/
ESP-EQA	European Society of Pathology - European Quality Assurance Program; Belgien https://www.esp-pathology.org/esp-foundation/eqa-schemes.html
ETRL	Eurotransplant Reference Laboratory; Niederlande http://etrl.eurotransplant.org/cms/index.php
GenQA	Genomics quality assessment; UK https://www.genqa.org/
INSTAND	Institut für Standardisierung und Dokumentation im medizinischen Laboratorium; Deutschland https://www.instand-ev.de/
ÖQUASTA	Österreichische Gesellschaft für Qualitätssicherung und Standardisierung medizinisch-diagnostischer Untersuchungen; Österreich http://www.oequasta.at/de/
QuIP	Qualitätssicherungs-Initiative in der Pathologie; Deutschland https://quip.eu/de_DE/
RCPA QAP	Royal College of Pathologists of Australasia Quality Assurance Programs; Australien https://rcpaqap.com.au/
RfB (DGKL)	Referenzinstitut für Bioanalytik; Deutschland https://www.rfb.bio/
UHKT	Institute of Hematology and Blood Transfusion; Tschechien https://www.uhkt.cz/laboratories/external-proficiency-testing

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LCT (Lactase)	*603202				S				S				S	
LDB3	*605906				NGS, S									
LDHA	*150000				NGS, S									
LDLR	*606945				S, NGS, CNV			X						
LMNA	*150330				NGS, S									
LMOD3	*616112				NGS, S									
LPIN1	*605518				NGS, S									
LRP4	*604270				NGS, S									
LRRK2	*609007				NGS, CNV									
LYST	*606897				NGS, CNV									
MALT1	*604860		FISH											
MAP3K20	*609479				NGS, S									
MAPT	*157140				NGS, CNV									
MATR3	*164015				NGS, S									
MAX	*154950							X						
MCOLN1	*605248		S											
MDM2	*164785							X						
MECP2	*300005		S					X						
MEF2B	*600661												S	
MEFV	*608107				S, NGS, CNV									
MEGF10	*612453				NGS, S									
MEN1	*613733							X						
MET	*164860		NGS		S, NGS			X, FISH, IHC			S, X			
MFN2	*608507							S						
MGMT	*156569		X					MET			S		S, MET	
MICU1					NGS, S									
MLH1	*120436		S, NGS, IHC		S, NGS, CNV			MET, X	S		IHC, MET	IHC		
MLL-PTD (KMT2A-PTD) fusion			S, RS											
MPL	*159530		S, RS, NGS						S				S	
MPZ (MPP, P0)	*159440				S, NGS, CNV			X						
MRE11	*600814				S									
MSH1														
MSH2	*609309		S, NGS, IHC		S, NGS, CNV			X	S		IHC			
MSH6	*600678		S, NGS, IHC		S, NGS, CNV			X	S		IHC			
MSTO1	*617619				NGS, S									
MTHFR	*607093		S			S			S				S	
MTM1	*300415				NGS, S									
MTRNR1 (MT-RNR1)	*561000							X						
MUSK	*601296				NGS, S									
MUTYH	*604933				S, NGS, CNV			X						
MVK	*251170				S, NGS, CNV									
MYBPC1	*160794				NGS, S									
MYBPC3	*600958		S		S, NGS, CNV									
MYC	*190080		NGS, IHC										S	
MYCN / NMYC	*164840		NGS											
MYD88	*612260								S				S	
MYH2	*160740				NGS, S									
MYH3	*160720				NGS, S									
MYH7	*160760		S		S, NGS, CNV									
MYL1	*160780				NGS, S									
MYL2	*160781		S		S, NGS, CNV									
MYL3	*160790		S		S, NGS, CNV									
MYMK	*615345				NGS, S									
MYO18B	*607295				NGS, S									
MYO9A	*604875				NGS, S									
MYOD1	*159970				NGS, S									
MYOG	*159980				S, NGS, CNV						IHC			
MYORG	*618255				NGS, CNV									
MYOT	*604103				NGS, S									
MYPN	*608517				NGS, S									
NEB	*161650				NGS, S									
NEFH	*162230													
NHLRC1	*608072				NGS, CNV									
NFKBIE	*604548												S	
NKX3-1	*602041										IHC, X			
NLRP3	*606416				S, NGS, CNV									
NOD2	*605956				S, NGS, CNV								S	
NOTCH1	*190198												S	
NOTCH3	*600276				NGS, CNV									
NPC1	*607623				NGS, CNV									
NPC2	*601015				NGS, CNV									
NPM1	*164040		S, RS, NGS						NGS				S	
NR4A3	*600542							X						
NRAS	*164790		NGS		S, NGS		S		NGS		S		S	S
NTHL1	*602656							X						
NTRK1	*191315						FISH, S		NGS, FISH				S, IHC, FISH	
NTRK2	*600456								NGS, FISH				S, IHC, FISH	
NTRK3	*191316								NGS, FISH				S, IHC, FISH	
NUDT15	*615792		S		S, NGS, CNV			X						
OPTN	*602432				NGS, CNV									
OPRM1	*600018		S											
ORAI1	*610277				NGS, S									
p16			IHC											
p53	*602704		IHC					X						
PAH	*612349				S									
PALB2	*610355		S		S, NGS, CNV			X						
PANK2	*606157				NGS, CNV									
PARK7	*606324				NGS, CNV									
PAX3	*606597												S, IHC, FISH	
PAX3-FOXO1 fusion			RT											
PAX7	*167410				NGS, S									
PAX7-FOXO1 fusion			RT											
PAX8-PPARG fusion			RS											
PAX8	*167415		IHC											
PCSK9	*607786				S, NGS, CNV									
PDCD1 (PD1)	*600244												IHC	
PDCD1LG2	*605723												S	
PDGFB	*190040				NGS, CNV									
PDGFRA	*173490		NGS					X			S			

Krankheit, Syndrom, Phänotyp
Bezeichnung
3-methylglutaconic aciduria, type I
Abacavir Hypersensitivität
ACADM deficiency (Acyl-CoA dehydrogenase, medium-chain deficiency; MCAD deficiency)
Achondrogenesis
Achondroplasia
Acne inversa, familial, 3
Acute Lymphoblastic Leukaemia (ALL)
Acute Myeloid Leukemia (AML)
Adenosine deaminase deficiency, partial
Adrenoleukodystrophy (ALD)
Adrenomyeloneuropathy (AMN)
Agammaglobulinemia
Albinism
Alexander disease
Alpha-1-Antitrypsin (AAT) Mangel
Alpha/beta T-cell lymphopenia with gamma/delta T-cell expansion, severe cytomegalovirus infection, and autoimmunity
Alport syndrome
Alternating hemiplegia of childhood 2
Alzheimer disease 2 (AD2; late onset)
Aminoglycoside-induced deafness
Amyotrophic lateral sclerosis (ALS)
Amyotrophic lateral sclerosis 2, juvenile (ALS2)
Andersen syndrome (Andersen cardiomyopathic periodic paralysis; long QT syndrome 7)
Androgen Insensitivity syndrome
Aneuploidy / Chromosomal rearrangements
Angelman-Syndrom
Antithrombin III deficiency
Apert syndrome
Aphasia, primary progressive
Arthrogyrosis, distal, various types
Arthrogyrosis, distal, type 2A (Freeman-Sheldon)
Arthrogyrosis, distal, type 2B3 (Sheldon-Hall)
Arthrogyrosis, distal, with impaired proprioception and touch
Arthrogyrosis multiplex congenita 3, myogenic type
Arthrogyrosis multiplex congenita 6
Ataxia telangiectasia (ATM, Louis-Bar syndrome)
Ataxia-telangiectasia-like disorder 1 (ATLD1)
Ataxias and Hereditary Spastic Paraplegia (HSP) / Friedreich Ataxia / Spinocerebellar ataxia (SCA)
Autoimmune disease, multisystem, infantile-onset, 1
Autosomal dominant polycystic kidney disease (ADPKD)
Avascular necrosis of femoral head, primary, 2
Bardet-Biedl syndrome 11
Basal ganglia calcification, idiopathic
Becker Muscular Dystrophy (BMD)
Beckwith-Wiedemann Syndrom (BWS)
Bethlem myopathy 1

Bethlem myopathy 2
Bile acid synthesis defect, congenital, 3
Birdshot chorioretinopathy
Birt Hogg Dube Syndrome (BHD)
Blau syndrome
Blasenkarzinom (Bladder cancer)
Bleeding disorder, platelet-type, 16 (BDPLT16)
Bleeding disorder, platelet-type, 24 (BDPLT24)
Bleeding disorder, platelet-type, 9 (BDPLT9)
Bloom Syndrom
Bosma arhinia microphthalmia syndrome (BAMS)
Brachyolmia type 3
Breast/ovarian cancer, familial (BRCA) (HBOC)
Bronchiectasis
Brown-Vialetto-Van Laere syndrome
Brugada syndrome
Butyrylcholinesterase deficiency
Canavan disease
CAPOS syndrome
CARASIL syndrome
Carbamazepin Hypersensitivität
Cardiac arrythmias
Cardiomyopathies (sequencing panel)
Cardiomyopathy, hypertrophic
Carey-Fineman-Ziter syndrome
Carnitine deficiency, systemic primary
Carpal Tunnel syndrome CTS1
Cataract, multiple types
Catecholaminergic polymorphic ventricular tachycardia (CPVT)
Cenani-Lenz syndactyly syndrome
Central core disease
Central hypoventilation syndrome,congenital, 1, CCHS1
Centronuclear myopathy
Cerebellar ataxia
Cerebellar ataxia and hypogonadotropic hypogonadism
Cerebellar ataxia, deafness, and narcolepsy, autosomal dominant
Cerebral amyloid angiopathy, PRNP-related
Cerebral arteriopathy, with subcortical infarcts and leukoencephalopathy
Cerebrotendinous xanthomatosis (CTX)
Ceroid lipofuscinosis, neuronal, 11
Ceroid lipofuscinosis, neuronal, 13 (Kufs type)
Ceroid lipofuscinosis, neuronal, 4 (Kufs type)
Ceroid lipofuscinosis, neuronal, 6A
Ceroid lipofuscinosis, neuronal, 6B (Kufs type)
Charcot-Marie-Tooth disease / Hereditary Liability to Pressure Palsies / Hereditary Motor and Sensory Neuropathy
Chediak-Higashi syndrome
Cholangiocarcinoma (bile duct cancer)
Chorea Huntington

Choreoacanthocytosis
Chorionic Villus Sampling (CVS)
Creatine phosphokinase, elevated serum
Chromosome breakage syndromes
Chronic Lymphocytic Leukaemia (CLL), Myelodysplastic syndrome (MDS)
Chronic Myeloid Leukaemia (CML)
Coeliac disease susceptibility (Zöliakie)
Colorectal cancer (CRC)
Combined cellular and humoral immune defects with granulomas
Combined D-2- and L-2-hydroxyglutaric aciduria
Combined deficiency of vitamin K-dependent clotting factors
Combined oxidative phosphorylation deficiency 3
Congenital absence of the vas deferens (bilateral, X-linked)
Congenital adrenal hyperplasia (Adrenogenitales Syndrom)
Congenital afibrinogenemia
Congenital disorder of glycosylation
Congenital dysfibrinogenemia
Congenital hypotonia, epilepsy, developmental delay, digital anomalies
Congenital lactase deficiency
Congenital muscular dystrophies
Congenital myopathy/myopathies
Congenital myopathy 18 due to dihydropyridine receptor defect
Congenital myopathy 3 with rigid spine
Congenital myopathy 6 with ophthalmoplegia
Contractures, pterygia, and spondylocarpotarsal fusion syndrome
Cornelia de Lange syndrome
Cortical dysplasia, complex, with other brain malformations 13
Coumarin/Warfarin Resistenz/Sensitivität
Cowden syndrome
CPT2 II deficiency (various)
Creutzfeldt-Jakob disease
Crouzon Syndrome
Cutaneous mastocytosis
Cystic fibrosis (CF; Mukoviszidose)
Danon disease
Dapsone Hypersensitivität Syndrom (DHS)
Dementia
Dentatorubral-pallidoluysian atrophy (DRPLA)
Dermatofibrosarcoma protuberans
Developmental and epileptic encephalopathy
Diarrhea 5, with tufting enteropathy, congenital (DIAR5)
Di-George syndrome
Digital arthropathy-brachydactyly, familial
Dihydropyrimidin-Dehydrogenase Mangel (5-Fluorouracil Toxizität)
Dravet syndrome
Duchenne/Becker Muscular Dystrophy
Dystonia 12 (DYT12)
Dystonia 27

Dystonia, DOPA-responsive
Dystransthyretinemic hyperthyroxinemia DTTRH
Ehlers Danlos Syndrome
Emery-Dreifuss muscular dystrophies (EDMD)
Encephalopathy, acute, infection-induced (herpes-specific), susceptibility to, 8
Encephalopathy, acute, infection-induced, 4, susceptibility to
Endometrial cancer
Epidermolysis bullosa simplex 5
Epilepsy, progressive myoclonic 2A (Lafora)
Epilepsy, progressive myoclonic 2B (Lafora)
Epilepsy, susceptibility to
Escobar syndrome
Estrogen resistance / insensitivity
Fabry disease
Farber lipogranulomatosis
Factor VII deficiency
Factor XII deficiency
Factor XIIIa deficiency
Faktor V deficiency
Familial adenomatous polyposis (FAP1, APC, FPC)
Familial atrial fibrillation (ATFB9)
Familial endocrine tumour predisposition disorders
Familial hypercholesterolemia 1
Familial hypercholesterolemia 2 (Familial defective apolipoprotein B-100)
Familial hypercholesterolemia 3
Familial hypoparathyroidism
Familial mediterranean fever (=hereditary recurrent fevers)
Familial medullary thyroid carcinoma (FMTC)
Familial paraganglioma and pheochromocytoma
Familial parathyroid carcinoma
Familial periodic fever
Fanconi-Anämie, Typ C
Fascioscapulohumeral muscular dystrophy 1 (FSHD1)
Fascioscapulohumeral muscular dystrophy 2 (FSHD2)
Fatty liver, acute, of pregnancy
Fazio-Londe disease
Feingold syndrome 1
Fetal akinesia deformation sequence
Fragile X Associated tremor ataxia (FXTAS)
Fragiles X Syndrom
Friedreich'sche Ataxie (FRDA)
Frontotemporal dementia
Frontotemporal lobar degeneration, TARDBP-related
Frontotemporal lobar degeneration with ubiquitin-positive inclusions
Galactosemia 1, galactosaemia I, GALAC1
Gastrointestinal stromal tumor (GIST)
Gaucher disease, perinatal lethal
Gaucher disease, type I

Gaucher disease, type II
Gaucher disease, type III(A)
Gaucher disease, type IIIC
Gerstmann-Straussler disease
Glanzmann thrombastenia
Glaucoma
Glioma susceptibility 1 (GLM1), Glioblastoma
Glutaric acidemia
Glycogen storage disease of heart, lethal congenital
Glycogen storage disease, type 1A
Glycogen storage disease, various types
Gnathodiaphyseal dysplasia
Goodpasture syndrome
Haematuria
Halperin-Birk syndrome (HLBKS)
HARP syndrome
Heart-hand syndrome, Slovenian type
HELLP syndrome, maternal, of pregnancy
Hemolytic anemia, G6PD deficient (favism)
Hep. C virus (susceptibility, resistance, response to treatment)
Hereditary amyloidosis
Hereditary angiodema, type III
Hereditary angioedema 1
Hereditary deafness (DFNB1A)
Hereditary fructose intolerance
Hereditary Haemochromatosis Type 1 (HFE1)
Hereditary hypoceruloplasminemia
Hereditary motor and sensory neuropathy, type IIc
Hereditary nonpolyposis colorectal cancer syndrome (HNPCC), type 2
Hereditary nonpolyposis colorectal cancer syndrome (HNPCC), type 4 (Lynch syndrome 4)
Hereditary nonpolyposis colorectal cancer syndrome (HNPCC), type 5 (Lynch syndrome 5)
Hereditary nonpolyposis colorectal cancer syndrome (HNPCC), type 8 (Lynch syndrome 8)
Hereditary nonpolyposis colorectal cancer syndrome, type 1 (Lynch syndrome)
Hereditary spastic paraplegia
Huntington disease-like 1
Hutchinson-Gilford progeria
Hyperaldosteronism, familial, type II
Hyperalphalipoproteinemia
Hyperbilirubinämie (M. Meulengracht; Gilbert's syndrome)
Hyperferritinemia-cataract syndrome
Hyperhomocysteinämie (MTHFR)
Hyper-IgE recurrent infection syndrome
Hyperkalemic periodic paralysis
Hyperlipoproteinämie
Hyperparathyroidism, familial, isolated
Hyperphenylalaninemia, BH4-deficient, B
Hypobetalipoproteinemia
Hypocalciuric hypercalcemia

Hypochondroplasia
Hypokalemic periodic paralysis
Ichthyosis, spastic quadriplegia, and impaired intellectual development
Immunodeficiency
Immunodeficiency-centromeric instability-facial anomalies syndrome
Inclusion body myopathy and brain white matter abnormalities (IBMWMA)
Inclusion body myopathy with early-onset Paget disease and frontotemporal dementia
Infantile neuroaxonal dystrophy 1
Inherited cancer (sequencing panel)
Inherited metabolic disorders
Insomnia, fatal familial
Intellectual developmental disorder with epilepsy, behavioral abnormalities, and coarse facies
Kagami-Ogata syndrome
King-Denborough syndrome
Klinefelter syndrome (47,XXY)
Klippel-Feil syndrome 4, autosomal recessive, with myopathy and facial dysmorphism
Kosaki overgrowth syndrome
Kufor-Rakeb syndrome
L-ferritin deficiency
Langer mesomelic dysplasia
Lateral meningocele syndrome
LCHAD deficiency
Leber congenital amaurosis
Leber hereditary optic neuropathy (LHON)
Legius syndrome
Left ventricular noncompaction 3
Leigh syndrome
Leri-Weill dyschondrosteosis
Lethal congenital contracture syndromes
Leukoencephalopathy with ataxia
Leukoencephalopathy with brain stem and spinal cord involvement and lactate elevation
Leukoencephalopathy with vanishing white matter 1/2/3/4/5, with or without ovarian failure
Lewy body dementia
Li Fraumeni syndrome
Limb Girdle muscular dystrophies (LGMD)
Lipodystrophy, congenital generalized, type 4
Lipodystrophy, familial partial, type 2
Lodder-Merla syndrome type 1 (LDMLS1)
Lodder-Merla syndrome type 2 (LDMLS2)
Long QT syndrome
Lungenkrebs, Bronchialkarzinom (NSCLC)
Machado-Joseph disease
Malignant hyperthermia susceptibility
Malouf syndrome
Mandibuloacral dysplasia
Marden-Walker syndrome
Marinesco-Sjogren syndrome
Marfan Syndrome (MFS)

Maturity Onset Diabetes of the Young (MODY) / Monogenic Diabetes
McArdle disease
Meningioma, SIS-related
Metabolic encephalomyopathic crises, recurrent, with rhabdomyolysis, cardiac arrhythmias, and neurodegeneration
Metachromatic leukodystrophy; MLD
Metachromatic leukodystrophy; MLD
Metatropic dysplasia
Microdeletion syndromes
Minicore myopathy with external ophthalmoplegia
Mismatch repair cancer syndrome 4 (MMRCS4)
Mitochondrial complex I deficiency, nuclear type 20
Mitochondrial complex III deficiency, nuclear type 2
Mitochondrial complex iv Deficiency, nuclear type 18
Mitochondrial cytopathies
Mitochondrial DNA deletion syndromes (keine näheren Angaben)
Mitochondrial DNA depletion syndrome 1 (MNGIE type)
Mitochondrial DNA depletion syndrome 12 (cardiomyopathic type)
Mitochondrial DNA depletion syndrome 5 (encephalomyopathic with or without methylmalonic aciduria)
Mitochondrial DNA depletion syndrome 16 (hepatic type)
Mitochondrial DNA depletion syndrome 16B (neuroophthalmic type)
Mitochondrial DNA depletion syndrome 2 (myopathic type)
Mitochondrial DNA depletion syndrome 4A
Mitochondrial DNA depletion syndromes 4B
Mitochondrial myopathy and ataxia
Mitochondrial myopathy, encephalopathy, lactic acidosis and stroke-like episodes (MELAS)
Mitochondrial myopathy, episodic, with optic atrophy and reversible leukoencephalopathy
Mitochondrial myopathy, isolated
Mitochondrial recessive ataxia syndrome
Mitochondrial trifunctional protein deficiency
Miyoshi muscular dystrophy
Morbus Crohn / Inflammatory Bowel Disease 1 (IBD1)
Morbus Waldenström / Macroglobulinemia Waldenstrom, Susceptibility to
Motor neuron disease
Mukopolipidose, Typ IV
Multiple Endocrine Neoplasia Type 1
Multiple Endocrine Neoplasia Type 2
Multiple endokrine Neoplasie, Typ 2A (MEN2A)
Multiple endokrine Neoplasie, Typ 2B (MEN2B)
Multiple pterygium syndrome, lethal type
Muscle glycogenosis
Muscular dystrophy, congenital
Muscular dystrophy, congenital, due to ITGA7 deficiency
Muscular dystrophy, congenital, megaconial type
Muscular dystrophy, congenital, merosin deficient or partially deficient
Muscular dystrophy, congenital hearing loss, and ovarian insufficiency syndrome
Muscular dystrophy, congenital, with cataracts and intellectual disability
Muscular dystrophy, limb-girdle
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A

Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type B
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type C
Muscular dystrophy-dystroglycanopathy (limb-girdle)
MUTYH-associated polyposis
MYD88 deficiency (recurrent pyogenic bacterial infections)
Myasthenic syndrome, congenital, slow-channel
Myasthenic syndrome, congenital, fast-channel
Myasthenic syndrome, congenital
Myasthenic syndrome, congenital, with tubular aggregates
Myasthenic syndrome, congenital, without tubular aggregates
Myasthenic syndrome, congenital, associated with acetylcholine receptor deficiency
Myasthenic syndrome, congenital, presynaptic
Myasthenic syndrome, congenital, with pre- and postsynaptic defects
Myelofibrosis
Myeloproliferative disorder with eosinophilia
Myeloproliferative Neoplasms
Myoclonus epilepsy with ragged red fibres (MERRF)
Myoclonus, intractable, neonatal
Myofibromatosis, infantile
Myoglobinuria, acute recurrent, autosomal recessive
Myopathy, distal, 3
Myopathy, distal, 5
Myopathy, distal, 6, adult-onset, autosomal-dominant (MPD6)
Myopathy, distal, Tateyama type
Myopathy, distal, with anterior tibial onset
Myopathy, distal, with rimmed vacuoles
Myopathy, epilepsy, and progressive cerebral atrophy
Myopathy, myofibrillar
Myopathy, myofibrillar, fatal infantile hepyrtonic, alpha-B crystallin-related
Myopathy, scapulohumeroperoneal
Myopathy, tubular aggregate, 2
Myopathy with extrapyramidal signs
Myopathy with lactic acidosis, hereditary
Myopathy, X-linked, with excessive autophagy
Myosclerosis, congenital
Myositis (Idiopathic inflammatory myopathy, IM)
Myotonia congenita, atypical, acetazolamide-responsive
Myotonic Dystrophie Typ 1 (DM1)
Myotonic Dystrophie Typ 2 (DM2)
Narkolepsie
Nemaline myopathy, autosomal dominant
Nemaline myopathy, autosomal recessive
Neurodegeneration with ataxia, dystonia , and gaze palsy, childhood-onset
Neurodegeneration with brain iron accumulation
Neurofibromatosis Type 1
Neurofibromatosis Type 2
Neuromuscular disease, congenital, with uniform type 1 fiber
Neuronopathy, distal hereditary motor, autosomal dominant (HMND)

Neuronopathy, distal hereditary motor, autosomal recessive
Neuropathy, ataxia and retinitis pigmentosa (NARP)
Neuropathy, Hereditary Motor Sensory and Autonomic Type III
Neuropathy, hereditary sensory, type IE
Niemann-Pick disease
Nonaka myopathy
Non-Hodgkin Lymphoma (NHL)
Noonan syndrome
Oculopharyngeal muscular dystrophy 2
Omenn syndrome
Optic atrophy 12 (OPA12)
Osteogenesis imperfecta, type 1
Osteogenesis imperfecta, type 2
Osteogenesis imperfecta, type 3
Osteogenesis imperfecta, type 4
Osteoporosis
Ösophaguskarzinom
Ovarialkarzinom (genom. Instabilität)
Paget disease of bone 3
PAI1 Mangel (Hyperfibrinolyse)
Paramyotonia congenita
Parastremmatic dwarfism
Parkinsons Disease
Pearson marrow-pancreas syndrome
Pemphigus vulgaris, familiär (PV)
Peutz-Jeghers syndrome
Pfeiffer syndrome
Phenylketonuria
Phosphoglycerate kinase 1 deficiency
Pick disease
Platelet disorder, familial, with associated myeloid malignancy
Pneumothorax
POLG-related disorders
Polyglucosan body disease, adult form
Polyglucosan body myopathy 1/2
Polymicrogyria, bilateral temporooccipital
Polycystic kidney disease 4 with or without polycystic liver disease; PKD4; ARPKD
Polycystic lipomembranous osteodysplasia with sclerosing leukoencephalopathy 1/2
Pontocerebellar hypoplasia
Poor drug metabolism, Cyp2C19-related - Opremazol, Proguanil, Clopidogrel, Mephenytoin
Poor drug metabolism, Cyp2D6-related - Debrosquin, Spartein, Notriptylin, Codein
Poor drug metabolism, Cyp3A4-related - Tacrolimus, Cyclosporin A
Porphyria, congenital erythropoietic (Gunther disease, CEP)
Porphyria cutanea tarda
Porphyria variegata
Porphyria, acute intermittent (AIP)
Prader-Willi-Syndrom (Angelman-Syndrom)
Premature Ovarian Failure

Premature aging syndrome, Penttinen type
Primary lateral sclerosis, juvenile (PLSJ)
Progressive external ophthalmoplegia, autosomal dominant 1
Progressive external ophthalmoplegia, autosomal recessive 1
Progressive external ophthalmoplegia with mitochondrial DNA deletions
Prostate Cancer
Prothrombin Mangel, angeboren
Protoporphyrin, erythropoietic, 1; EPP1
Pseudohypoparathyroidism type 1A (Albright hereditary osteodystrophy)
Pseudopseudohypoparathyroidism
Psoriasis vulgaris (Psoriasis 1 susceptibility)
Pulmonary Arterial Hypertension (PAH)
Pyogenic sterile arthritis, pyoderma gangrenosum, and acne
Renal tubular dysgenesis
Respiratory insufficiency
Retinal dystrophy with inner retinal dysfunction and ganglion cell abnormalities
Retinitis pigmentosa
Retinoblastoma
Retinopathies (Retinitis Pigmentosa, Cone/Cone-rod dystrophies, Leber congenital amaurosis and macular degeneration)
Rett-Syndrom
Rhabdomyosarcoma 2, alveolar
Rheumatoide Arthritis (RA)
Rippling muscle disease 2 Rippling muscle disease 2
Russell-Silver syndrome
Sandhoff disease
Sarcoma
Scapulo-peroneal spinal muscular atrophy
Scapulo-peroneal syndrome, neurogenic, Kaeser type
Schwannomatosis
Sclerosteosis 2
Seckel syndrome
SED, Maroteaux type
Severe combined immunodeficiency, Athabaskan type
Severe combined immunodeficiency, B cell-negative
Severe combined immunodeficiency due to ADA deficiency
Severe Combined Immunodeficiency (pilot)
Short stature, idiopathic familial / Familial SHOX-related disorders
Sialuria
Sichelzellanämie
Silver-Russell Syndrom (SRS)
single mtDNA deletion disorders
Sneddon syndrome
Spastic ataxia 1
Spastic ataxia 5 (SPAX5)
Spastic paralysis, infantile-onset ascending; IAHS
Spinal and bulbar muscular atrophy, X-linked 1 (SMA1; Kennedy disease)
Spinal muscular atrophy, infantile, James type (SMAI)
Spinal muscular atrophy, Jokela type

Spinal muscular atrophy, late-onset, Finkel type
Spinal muscular atrophy, lower extremity-predominant, autosomal dominant
Spinal muscular atrophy, type 1
Spinal muscular atrophy, type 2
Spinal muscular atrophy, type 3
Spinal muscular atrophy, type 4
Spinal muscular atrophy with congenital bone fractures
Spinal muscular atrophy with progressive myoclonic epilepsy
Spinocerebellar ataxia
Spinocerebellar ataxia 1
Spinocerebellar ataxia 2
Spinocerebellar ataxia 6
Spinocerebellar ataxia 7
Spinocerebellar ataxia, autosomal recessive 8
Spinocerebellar ataxia type 3
Spinocerebellar ataxia type 4
Spinocerebellar ataxia type 5
Split-foot malformation with mesoaxial polydactyly
Spondyloarthropathy 1 (Spondylitis ankylosans, M. Bechterew)
Spondylometaphyseal dysplasia, Kozlowski type
Spongiform encephalopathy with neuropsychiatric features
Stargardt disease 3
Stevens-Johnson Syndrome, Allopurinol induced (ASJ)
Stevens-Johnson Syndrome, Carbamazepine induced (CSJ)
Stickler syndrome type I
Stickler Syndrome Type II
Stickler syndrome type IV
Stickler syndrome type V
Stormorken syndrome
Structural eye abnormalities: Microphthalmia/anophthalmia, Coloboma, Anterior chamber defects
Systemic hemosiderosis due to aceruloplasminemia
Tay Sachs disease (TSD)
Temple syndrome (UPD14)
Thalassämie alpha
Thalassämie beta
Thanatophoric Dysplasia
Thiopurin-S-Methyltransferase (TPMT) Mangel
Thrombocytopenia 1
Thrombophilia due to protein C deficiency, AD (THPH3)
Thrombophilia due to protein C deficiency, AR (THPH4)
Thrombophilia due to protein S deficiency, AD (THPH5)
Thrombophilia due to protein S deficiency, AR (THPH5)
Thrombophilie (activated protein C resistance; THPH2)
Thrombophilie (THPH1, F5, F2, (MTHFR))
Thyrotoxic periodic paralysis, susceptibility to, 1
Tibial muscular dystrophy, tardive
Triploidy
Trisomy 13 (Patau Syndrome)

Trisomy 18 (Edwards syndrome)
Trisomy 21 (Down Syndrome)
Tuberous sclerosis complex (TSC)
Turner Syndrome
Ullrich congenital muscular dystrophy 1
Ullrich congenital muscular dystrophy 2
Urothelial cell carcinoma
Uruguay faciocardiomusculoskeletal syndrome FCMSU
Vasculitis, autoinflammation, immunodeficiency, and hematologic defects syndrome
VEXAS syndrome, somatic
Vici syndrome
Vitamin D-dependent rickets, type 2A
VLCAD deficiency
Von Hippel-Lindau syndrome
Welander distal myopathy
Williams-Beuren syndrome
Wilson disease
Wolff-Parkinson-White syndrome (WPW syndrome)
X inactivation
Y-chromosome microdeletions
Y deletion
Yunis-Varon syndrome
Zervixkarzinom

	Anbieter & Methoden							
OMIM	BVDH	CAP	CF Network	EMQN	EQUALIS	ESP-EQA	ETRL	GenQA
#250950				NGS, CNV				
	S							
#201450	S						X	
							X	
#100800				S			X	
#613737				NGS, CNV				
#613065							FISH, X	
#601626					S		FISH, X	
#102700				NGS, S				
#300100				NGS, CNV				
#300100				NGS, CNV				
#300755							X	
							X	
#203450				NGS, CNV				
#613490	S							
#609889				NGS, S				
#301050							X	
#614820				NGS, CNV				
#104310	S				S		X	
# 580000							X	
#105400				S, NGS, CNV			X	
#606353				NGS, CNV				
#170390				NGS, S				
#300068							X	
							X	
#105830	S, MET			MET, SB			X	
#613118								
#101200							X	
#607485				NGS, CNV				
				S, NGS				
#193700				S, NGS				
#618436				S, NGS				
#617146				S, NGS				
#618484				S, NGS				
#619334				S, NGS				
# 208900							S	
#604391				S				
				NGS, CNV			X	
#615952								
#173900				S, NGS, CNV			S	
#617383				NGS, S				
#615988				NGS, S				
				NGS, CNV				
#300376	S			S, CNV			X	
#130650				S, CNV, MET			X	
#158810				NGS, S				

#616471			NGS, S				
#613812			NGS, CNV				
#605808	S						
#135150							
#186580			S, NGS, CNV				
#187800							
# 619271							
#614200							
#210900	S						X
#603457			S, MET, CNV				
#113500			NGS, S				
#604370	S, FISH		S, NGS, CNV				X
							X
			NGS, S				
#611777							X
#617936							
#271900	S						
#601338			NGS, CNV				
#600142			NGS, CNV				
#608579	S						
			S, NGS, CNV				X
	S		S, NGS, CNV				X
#607487			NGS, S				
#254940			NGS, S				
#212140			NGS, S				
#115430			NGS, S				
#613763			NGS, S				
			X				X
#212780			NGS, S				
#117000			S, NGS, CNV				
#209880			S, NGS				
			S, NGS				
#604290			NGS, CNV				
#212840			NGS, CNV				
#604121			NGS, CNV				
#137440			NGS, CNV				
			NGS, CNV				
#213700			NGS, CNV				
#614706			NGS, CNV				
#615362			NGS, CNV				
#162350			NGS, CNV				
#601780			NGS, CNV				
#204300			NGS, CNV				
			S, NGS, CNV				X
#214500			NGS, CNV				
							X
#143100	S		S				X

#200150				NGS, CNV				
								X
#123320				NGS, S				
								X
#151400								FISH, X
#608232								FISH, X
#212750		S						
#114500				S, NGS		X		X
#233650				NGS, S				
#615182				NGS, S				
#607473				S, NGS, CNV				
#610505				NGS, S				
#300985								X
#201910				S, NGS, SB, CNV				X
#202400								
				NGS, S				
#616004								
# 618494								X
#223000					S			
								X
				NGS, S, CNV				
#620246				NGS, S				
#602771				NGS, S				
#605637				NGS, S				
				NGS, S				
								S
#614563				NGS, S				
#122700								
								X
				NGS, S				
#123400				NGS, CNV				
#123500								X
#154800				S, NGS				
#219700		S	X	S				X
#300257				S, NGS				
		S						
				NGS, CNV				
# 125370								X
#607907				NGS, CNV				
				NGS, CNV				
#613217				S, NGS, CNV				
#188400								X
#606835				NGS, S				
#274270				S, NGS, CNV				
#607208								X
#310200		S		S, CNV				X
#128235				NGS, CNV				
#616411				NGS,S				

#128230			NGS, CNV				
#145680			S, NGS				
							X
			S, NGS				X
#617900			NGS, CNV				
#614212			S, NGS				
# 608089							X
			NGS, S				
#254780			NGS, CNV				
#254780			NGS, CNV				
			S, CNV				
#265000			S, CNV				
#615363			S, CNV				
#301500							X
#228000			NGS, S				
#227500							
#234000							
#613225							
#227400		S			S		
#175100			S, NGS, CNV				X
#613980			NGS, S				
							X
#143890			S				X
#144010			S				X
#603776			S				X
							X
#249100			S				
#155240			S, NGS, CNV				X
#168000							X
#145000							X
#142680			S, NGS, CNV				
#227645		S					X
#158900			S				
#158901			S, MET, CNV				
#609016			S, NGS				
#211500			NGS, S				
#164280		NGS					
			S, NGS				
		S					X
#300624		S	S, MET, SB, X				X
#229300		S	S, SB				X
#600274			NGS, CNV				X
#612069			NGS, CNV				
#607485			NGS, CNV				
# 230400							X
#606764			S, NGS				X
#608013		S					
#230800		S					

#230900		S						
#231000		S						
#231005		S						
#137440				NGS, CNV				
#273800								
				NGS, CNV				
#137800		S, NGS						X
				NGS, S				
#602743				NGS, S				
#232200		S						X
				NGS, S				
#166260				NGS, S				
#233450								
#141200								X
#618651				S				
#607236				NGS, CNV				
#610140				NGS, S				
#609016				NGS, S				
#300908		S						
#609532								
#105210				NGS, S				
#610618								
# 106100								X
#220290		S		S, NGS, CNV				
#229600								
#235200		S		S, NGS	S			
#604290				NGS, CNV				
#606071				NGS, CNV				
#609310		X		S, NGS, CNV				X
#614337		X		S, NGS, CNV				X
#614350		X		S, NGS, CNV				X
#613244				S, NGS, CNV				
#120435		X		S, NGS, CNV				X
				NGS, CNV				X
#603218				NGS, CNV				
#176670				S, NGS				
#605635				NGS, CNV				
#143470								
#143500		S		S, NGS, CNV				X
#600886				NGS, CNV				
#236250		S			S			
#147060								
#170500				NGS, S				
#617347		S						
# 145000								
#233910				NGS, CNV				
#615558				S, NGS, CNV				

#146000			S			X
			NGS, S			
#614457			NGS, CNV			
		FISH	NGS, S			
						S
#619733			NGS, CNV			
			NGS, CNV			
#256600			NGS, CNV			
		S				
		X				
#600072			NGS, CNV			
#619031			NGS, S			
# 608149						X
#145600			S, NGS, CNV			
						X
#616549			NGS, S			
#616592			NGS, CNV			
#610513			NGS, CNV			
#615604			NGS, CNV			
#249700			S, NGS, CNV			
#13720			NGS, CNV			
#609016			S, NGS			
						X
#535000		S	S, NGS			X
# 611431						X
#601493			NGS, S			
#256000			S, CNV			X
#127300			S, NGS, CNV			
			NGS, S			
#615651			NGS, CNV			
#611105			NGS, CNV			
			NGS, CNV			
#127750			NGS, CNV			
# 151623						X
#608099			NGS, S			X
#613327			NGS, S			
#151660			NGS, S			
#617173			NGS, S			
#617182			NGS, S			
			X, NGS, S			X
#211980		IHC	X		X, FISH	X
#109150			S			
			S, NGS, CNV			
#212112			NGS, S			
#248370			NGS, S			
#248700			NGS, S			
#248800			NGS, S			
#154700						X

#606391							
#232600				NGS, S			
#607174							
#616878				NGS, S			
#250100				NGS, CNV			
#250100				NGS, CNV			
#156530				NGS, S			
							X
#255320				S, NGS, CNV			
# 619101							
#611126				NGS, CNV			
#615157				NGS, CNV			
#619062				NGS, S			
		S					X
		S					
#603041				NGS, S			
#612075				NGS, S			
#612073							
#618528				NGS, S			
#619425				NGS, S			
#609560				NGS, S			
#203700							
#613662							
#617675				NGS, S			
#540000				S, NGS			
#251900				S, NGS			
#616209				NGS, CNV			
#607459							
				NGS, S			
				NGS, S			
#266600				S, NGS, CNV			
#153600							
#252650		S					
#131100							X
#171400		S		S, NGS, CNV			X
#171400		S		S, NGS, CNV			X
#162300		S		S, NGS, CNV			
#253290				NGS, S			
#300559				NGS, S			
#613205				NGS, S			
#613204				NGS, S			
#602541				NGS, S			
#607855				NGS, S			
#619518				NGS, S			
#617404				NGS, S			
				NGS, S			
				NGS, S			

			NGS, S				
			NGS, S				
			NGS, S				
#608456			S, NGS, CNV				X
#612260							
			NGS, S				
			NGS, S				
			NGS, S				
			NGS, S				
			NGS, S				
			NGS, S				
#254210			NGS, S				
#615120			NGS, S				
#254450				S			
#131440			NGS, CNV				
#616871							FISH, NGS, X
#545000	S		S, NGS				NGS, X
#617235			NGS, CNV				
			NGS, CNV				
#268200			S, NGS				
#610099			NGS, CNV				
#617030			NGS, CNV				
#618655			S, NGS				
#614321			S, NGS				
#606768			S, NGS				
#617158			NGS, CNV				
#619036			NGS, S				
			NGS, S				
#613869			NGS, S				
#616852			NGS, CNV				
#615883			NGS, S				
# 615673			NGS, S				
#255125			NGS, S				
#310440							
#255600			NGS, S				
#160750							
#608390			NGS, S				
#160900	S		S, SB				X
#602668			S, SB				
#161400	S						
			NGS, S				
			NGS, S				
#617158			NGS, CNV				
			NGS, CNV				
#162200							X
#101000							X
#117000			S, NGS, CNV				
			S, NGS				

			S, NGS				
#551500			S, NGS				X
#223900	S						
#614116			NGS, CNV				
#257200	S						
#605820			NGS, S				
#605027							NGS, FISH, X
#163950							X
#620460			NGS, S, CNV				
#603554			NGS, S				
#618977			NGS, CNV				
#166200			S, NGS, CNV				X
#166210			S, NGS, CNV				X
#259420			S, NGS, CNV				X
#166220			S, NGS, CNV				X
#166710							
#167250			NGS, CNV				
#613329	S						
#168300			NGS, S				
#168400			NGS, S				
#168600			NGS, CNV				
#557000			S, NGS				
#169610	S						
#175200							X
#101600							X
#261600			S				
#300653			NGS, S				
#172700			NGS, CNV				
# 601399							
# 173600							X
							X
#263570			NGS, S				
			NGS, S				
#612691			NGS, CNV				
# 263200							X
#221770 / #618193			NGS, CNV				
			NGS, CNV				
#609535	S						
#608902	S						
	S						
#263700			S, NGS, CNV				
#176100			S, NGS, CNV				
#176200			S, CNV				
#176000			S, NGS, CNV				
#176270	S, MET		MET, SB				FISH, X
							X

#601812			NGS, CNV				
#606353			NGS, CNV				
#157640							
#258450							
			NGS, S				
	S		S				X
#613679	S						
#177000			S				
# 103580							X
# 612463							X
#177900	S						
#178600							
#604416			S				
# 267430							
							X
* 603904			NGS, CNV				
			S, NGS				X
#180200			S, NGS, CNV				
			S, NGS				X
#312750	S						X
#268220			NGS, S				
#604302							
#606072			NGS, S				
#312780							X
#268800			NGS, CNV				
	S, X						X
#181405			NGS, S				
#181400			NGS, S				
							X
#614305			NGS, S				
							S
#184095			NGS, S				
#602450			NGS, S				
#601457			NGS, S				
#102700			NGS, S				
#601457							X
#300582			S, NGS, CNV				
#269921			NGS, S				
#603903							
#180860			S, CNV, MET				X
							X
#182410			S				
#108600			NGS, CNV				
#614487			NGS, CNV				
#607225			NGS, CNV				
#313200							X
#619042			S, NGS				
#615048			NGS, CNV				

#182980			NGS, CNV				
			S, NGS				
#253300	S, CNV		S				X
#253550	S, CNV		S				
#253400	S, CNV		S				
#271150	S, CNV		S				
#616866			NGS, S				
#159950			NGS, S				
			NGS, CNV				X
#164400	S		S				
#183090	S		S				
#183086			S				
#164500			S				
#610743			NGS, S				
#109150	S		S				
#600223	S		S				
#600224	S		S				
#616890			NGS, S				
#106300	S						
#184252			NGS, S				
#606688			NGS, CNV				
#600110			NGS, CNV				
#608579							
#108300			S, NGS, CNV				
#604841			S, NGS, CNV				
#614134			S, NGS, CNV				
#614284			S, NGS, CNV				
#185070			NGS, S				
							X
#604290			NGS, CNV				
#272800	S		NGS, CNV				
# 616222							X
#301040	S						
#603902	S						
#187600			S				X
#610460	S		S, NGS, CNV				X
#187950							
#176860							
#612304							
#612336							
#614514							
#188055							
#188050	S			S			
#188580			NGS, S				
#600334			NGS, S				
							X
#264480							NGS, FISH, X

INSTAND	ÖQUASTA	QuIP	RCPA QAP	RfB (DGKL)	UHKT
NGS			S, NGS		
S				S	
S				S	
S				S	
S				S	
S					
S					

				S	
S				S	
S				S	
		IHC			

Methode	BVDH	CAP
	Array-Diagnostik	X
Cell free DNA detection (common microdeletions; noninvasive prenatal testing)		
Cell free DNA detection (fetal aneuploidy; noninvasive prenatal testing)		X
Cell free DNA detection (fetal sexing; noninvasive prenatal testing)		
Cell free DNA detection (oncogenic mutations)		X
Constitutional CNV - postnatal		
Constitutional CNV - pränatal		
Cytogenomic microarray		X
DNA extraction (Blood)		X
DNA extraction (Fresh frozen tissue)		
DNA extraction (Saliva)		
DNA extraction and amplification from formalin-fixed, paraffin-embedded tissue		X
DNA quantification		
DNA sequencing		X
FISH (fixierte Zellen)	X	X
FISH (Paraffin-embedded tissues)		X
Genetische Beratung	X	
IHC (Immunohistochemistry)		X
Molecular tissue identification (Molecular fingerprinting)		
NGS (Next generation sequencing)	X	X
PID/PGT: Blastomere testing by FISH (aneuploidy, structural rearrangements)		
PID/PGT: Polar bodies testing by NGS and/or arrays		
PID/PGT: Trophectoderm/blastomere testing for aneuploidies		
PID/PGT: Trophectoderm/blastomere testing for chromosomal rearrangements		
PID/PGT: Trophectoderm/blastomere testing for monogenetic disorders		
Whole exome sequencing		
Zytogenetik (Chromosomenaberrationen)		X
Zytogenetik (Karyotypisierung, Chromosomenbandanalyse)	X	X
Zytogenetik postnatal	X	
Zytogenetik pränatal: Chorionzottenbiopsie (CVS)	X	
Zytogenetik pränatal: Fruchtwasseranalyse (Karyotypisierung)	X	
Zytogenetik pränatal: Schnelltest (FISH, PCR)	X	
Constitutional Cytogenetics - Postnatal		
Cytogenetics	X	X
Molecular Rapid Aneuploidy (MRA): QF-PCR, MLPA, BoBs		
Chromosome Breakage Syndromes		
Zytogenetik, molekular	X	

Glycogen storage disease, type 1A





