CENTOGENE
THE RARE DISEASE COMPANY

Promo Code ›
(if applicable) _____

Biochemical and Biomarker Testing

› Patient information

Surname .....
First Name .....
Date of Birth MM DD YYYY
Sex ☐ Male ☐ Female
Street .....
Zip Code / Town .....
Country .....
Your Reference Number .....
Sample Collection Date MM DD YYYY

› Biomarker Testing only

☐ Gaucher disease ☐ Fabry disease
☐ Farber disease ☐ Niemann-Pick disease

For patients under enzyme replacement therapy (ERT) please specify the ERT:

Name of enzyme replacements:

.....

.....

Start of ERT: MM DD YYYY
Dosage: .....

› Physician or laboratory (Reporting Address)

Name of Physician .....
Clinic .....
Department .....
Street .....
Zip Code / Town .....
Country .....
Telephone ..... Fax .....
E-Mail .....

› Additional report recipient

Name of Physician .....
Clinic .....
Department .....
Street .....
Zip Code / Town .....
Country .....
Telephone ..... Fax .....
E-Mail .....

› Billing

CENTOGENE Quotation No. .....
Invoice to ☐ Patient ☐ Clinic/Insurance
Please attach Authorization/Referral

Name .....
Department .....
Street .....
ZIP Code/Town .....
Country .....
Phone ..... Fax .....
E-Mail .....

› In Case of Direct Billing to the Patient

I authorize the physician to request this analysis/these analyses and I am informed about the resulting costs (and possibly applicable German 19% VAT). I herewith undertake to be liable for the payment of any invoice related to this diagnostics and I declare that the address given above is the correct billing address.

Place, Date _____

Signature of Patient/Guardian ✗ _____

Minimum Sample Requirements

EDTA blood (≥ 1 ml) or
CentoCard® (1pc, 10 fully saturated dried blood spots)
All samples should reach CENTOGENE within 2 weeks of sample collection.

Exceptions: Arylsulfatase A enzyme (MLD) testing requires ≥7ml ETDA blood (testing is performed on leukocytes). Samples should be shipped to CENTOGENE so that they arrive within 72 hours of collection.

CentoLSD Enzyme Panel and CentoLSD Enzyme Panel X-TRA require **2 CentoCard®.**

I confirm that I have the patient`s signature on file for all of the issues mentioned above and that I am aware that the patient can request us to have his/her results eliminated at any time and that I shall convey this request to CENTOGENE.

Place, Date .....

Signature of Physician ✗ .....

CENTOGENE AG
Am Strande 7
18055 Rostock, Germany

Contact Details
Phone: +49 (0) 381 80 113 - 416
Fax: +49 (0) 381 80 113 - 401
customer.support@centogene.com
www.centogene.com

› The Terms & Conditions of CENTOGENE AG, which are available on www.centogene.com, apply to your order. Your specific order will be invoiced at the specific prices as listed on www.centogene.com at the time of receipt of your order.

CENTOGENE
THE RARE DISEASE COMPANY

› Biochemical genetics panel

Please select panel to test

Enzyme Panel = analysis of all enzyme activities within the panel
Enzyme Panel X-TRA = analysis of all enzyme activities within the panel
+ sequencing/CNVs of implicated gene(s) in event of pathological findings in any enzyme activity

✓	PANEL	12 ENZYMES	
☐	**CentoSphingo Enzyme Panel**	Acidic sphingomyelinase Beta-glucocerebrosidase Chitotriosidase Alpha-galactosidase Acidic alpha-glucosidase Beta-hexosaminidase	Hexosaminidase AB Alpha-N-acetylgalactosaminidase Acid lipase Alpha-mannosidase Beta-mannosidase Alpha-fucosidase
☐	**CentoSphingo Enzyme Panel X-TRA**		

✓	PANEL	2 ENZYMES
☐	**CentoNCL Enzyme Panel**	Palmitoyl-protein thioesterase Tripeptidyl peptidase
☐	**CentoNCL Enzyme Panel X-TRA**	

✓	PANEL	8 ENZYMES	
☐	**CentoMPS Enzyme Panel**	Alpha-L-iduronidase Iduronate-2-sulfatase N-acetyl-alpha-glucosaminidase N-acetylgalatosamine-6-sulfate-sulfatase	Beta-galactosidase Arylsulfatase B Beta-glucuronidase Alpha-mannosidase
☐	**CentoMPS Enzyme Panel X-TRA**		

✓	PANEL	21 ENZYMES	
☐	**CentoLSD Enzyme Panel**	Acidic sphingomyelinase Beta-glucocerebrosidase Chitotriosidase Alpha-galactosidase Acidic alpha-glucosidase Beta-hexosaminidase Hexosaminidase AB Alpha-N-acetylgalactosaminidase Acid lipase Alpha-mannosidase Beta-mannosidase	Alpha-fucosidase Alpha-L-iduronidase Iduronate-2-sulfatase N-acetyl-alpha-glucosaminidase N-acetylgalatosamine-6-sulfate-sulfatase Beta-galactosidase Arylsulfatase B Beta-glucuronidase Palmitoyl-protein thioesterase Tripeptidyl peptidase
☐	**CentoLSD Enzyme Panel X-TRA**		

› Biomarker Testing

Please select biomarker to test

✓	BIOMARKER	DISEASE
☐	C26 Ceramide (cis-C26 Cer)	Farber disease
☐	Glucosylsphingosine (lyso-Gb1)	Gaucher disease
☐	Lyso-Ceramide trihexoside (lyso-Gb3)	Fabry disease
☐	Lyso-SM509	Niemann-Pick disease type A/B/C

› Biochemical Testing

Please select the enzymatic activity(ies) to test according to left column

✓	ENZYME	DISEASE	GENE
☐	Acid lipase	Wolman disease, Cholesteryl ester storage diseas	LIPA
☐	Acidic alpha-glucosidase	Pompe disease	GAA
☐	Acidic sphingomyelinase	Niemann-Pick Type A/B disease	SMPD1
☐	Alpha-fucosidase	Alpha-fucosidase deficiency	FUCA1
☐	Alpha-galactosidase	Fabry disease	GLA
☐	Alpha-L-iduronidase	Hurler disease, MPS I	IDUA
☐	Alpha-mannosidase	Alpha-mannosidase deficiency	MAN2B1
☐	Alpha-N-acetylgalactosaminidase	Schindler/Kanzaki disease	NAGA
☐	Arylsulfatase A	Metachromatic leukodystrophy (MLD)	ARSA
☐	Arylsulfatase B	Maroteaux-Lamy syndrome, MPS VI	ARSB
☐	Beta-galactosidase	Morquio disease, MPS IVB	GLB1
☐	Beta-glucocerebrosidase	Gaucher disease	GBA
☐	Beta-glucuronidase	Sly syndrome, MPS VII	GUSB
☐	Beta-hexosaminidase	Tay-Sachs disease	HEXA
☐	Beta-mannosidase	Beta-mannosidase deficiency	MANBA
☐	Chitotriosidase	Gaucher disease (unspecific)	-
☐	Galactocerebrosidase	Krabbe disease	GALC
☐	Hexosaminidase AB	Sandhoff disease	HEXB
☐	Iduronate-2-sulfatase	Hunter disease, MPS II	IDS
☐	N-acetylgalatosamine-6-sulfate-sulfatase	Morquio disease, MPS IVA	GALNS
☐	N-acetyl-alpha-glucosaminidase	Sanfilippo syndrome, MPS IIIB	NAGLU
☐	Palmitoyl-protein thioesterase	Batten disease type 1, Neuronal ceroid lipofuscinosis type1, NCL1, Infantile NCL, Santavuori-Haltia disease	PPT1
☐	Tripeptidyl peptidase	Batten disease type 2, Neuronal ceroid lipofuscinosis type2, NCL2, Late infantile NCL, Jansky-Bielschowsky disease	TPP1
☐	Combined N-acetylgalatosamine-6-sulfate-sulfatase and beta-galactosidase	Morquio disease IVA, MPS IVA and Morquio disease IVB, MPS IVB	GALNS, GLB1

› Patient Clinical Information/Familial Mutations Information (Pedigree)

Please use a separate sheet of paper if necessary

CENTOGENE
THE RARE DISEASE COMPANY

Information part of consent form for conducting genetic analyses

CENTOGENE requires a signed consent form from the patient in order to be legally able to conduct a genetic analysis. Please ensure that this signed consent form accompanies the sample(s).

Dear patient,

Your physician has recommended a genetic analysis for you (or a person in your legal custody) to clarify the diagnosis/symptoms stated in the section "declaration of consent" below. In order to ensure that you have understood the purpose and significance of a genetic analysis, we have provided information about the testing process and potential results below.

The purpose of a genetic analysis is to identify the cause of a suspected disease in you or your family by analyzing your genetic material (DNA) for an abnormal change (variant) that could explain the disease you or members of your family are experiencing.

In a genetic analysis, depending on the case, you can be tested for:
- A single gene/variant responsible for a specific, suspected genetic disease, or
- Multiple genes (gene panels, whole exome or genome sequencing) in parallel.

The study material that is needed to perform the genetic analysis is stated in the test order form and is typically blood or purified DNA, but may also be tissue, saliva or buccal swab.

Possible results from the genetic analysis:
A genetic analysis can have one of several outcomes:
- A disease-causing DNA variant is identified confirming the diagnosis and allowing appropriate medical management by your physician (if such is available).
- A DNA variant is identified but at this time, there is not enough scientific and medical information to determine if this is a disease-causing variant or not. Your physician will discuss such a result with you and explain what further options are available to you.
- The genetic analysis results in no specific finding that can explain the symptoms. This can be due to the current limitations in scientific or medical knowledge and technology.

It is important to understand that genetic analyses – even if the result of a specific analysis is negative - are not exhaustive and that it is therefore not possible to exclude risks for all possible genetic diseases for yourself and your family members (especially your children).
It is possible that the knowledge of the test results may result in psychological stress for you and your family. It is always recommended to discuss the results with your responsible physician.

Incidental findings:
Genetic analyses, particularly those involving a large number of genes such as whole exome or genome sequencing, may identify results that are not directly related to the actual reason for your testing (incidental findings). However, such findings could still be of medical importance for you and your family, as they may provide information about a risk (that you may not be aware of) for potentially serious, unavoidable or non-treatable genetic diseases.
As part of the optional sections of your consent declaration below, you can decide whether or not and under which circumstances you wish to be informed about such incidental findings.

Family relationship findings:
If several family members are tested, the correct interpretation of the results depends on the provided relationships between family members being accurate. If the genetic analysis reveals a possibility that there is a discrepancy in the provided relationships, CENTOGENE will not inform you, unless in exceptional cases where this information is absolutely necessary for the completion and correct medical interpretation of the requested analysis.

Use of the health data, sample and test results:
The sample and provided data including health data will be used for the requested analysis and along with the test results will be stored and processed in accordance with your consent declaration below.

Right of withdrawal:
You can withdraw your consent to the analysis with effect for the future at any time in full or in part without providing a reason.

Right not to know:
You have the right not to be informed about test results (right not to know) and to stop the testing processes that have been started at any time up to being given the results and to request the destruction of all analysis results.

Pseudonymisation and Anonymisation:
Pseudonymisation means the processing of your personal data in a way that the personal data can no longer be attributed to your person without a certain identifier, which is kept separately and protected only by CENTOGENE. "Anonymisation" refers to the process of rendering your data anonymous, which then does not allow your identification from the anonymous data at all anymore.

Data protection information for patient and physician:
In the following we want to inform you about the processing of personal data during and after the performance of the genetic analysis. "Personal data" is understood to mean all information which relates to an identified or identifiable natural person. To all such collected and processed personal data, the following applies:

- Controller and responsible entity for the processing of your personal data is CENTOGENE AG, Am Strande 7, 18055 Rostock, represented by the Executive Board members as can be found on our website (https://www.centogene.com/about-centogene/team/executive-board.html). You can reach our data protection officer under the same address with the addition "Attn: Data Protection Officer" or by email dataprivacy@centogene.com.
- Patient: By virtue of this consent form and through your physician, we collect the following data about you (in each case insofar as provided): personal details (including name and address), family relations, age/date of birth, gender, ethnicity, nationality, insurance information, symptoms and other medical information, disease, the study material / sample with identifiable genetic data, the genetic analysis results and findings. All your collected data will be stored for as long as indicated in the consent declaration. The data will be processed – partially also in data centers operated by service providers under our control and instructions - for the performance of the genetic analysis requested and for informing your physician of the results of such analysis, in each case on the basis of the consent provided. In case you have consented accordingly, such data will also be stored and processed for those further purposes as specified in the consent declaration.
- Physician: All your collected data will be processed to communicate with you about the tests and the results, as well as for invoicing, for as long as we keep identifiable data about your patients. This takes place on the basis of legal provisions allowing to process personal data for the purpose of performing a contract and for customer relation management reasons because we have a respective legitimate interest. We use data processors, which have been carefully selected and are subject to our instructions and to regular monitoring. Disclosures to data processors may result in such data being processed in countries outside of the EU (third countries). For each such transmission of data to a third country it is safeguarded that either an adequate level of protection or reasonable guarantees exist; e.g. by concluding a data processing agreement containing EU standard data protection clauses (retrievable at: http://ec.europa.eu/justice/data-protection/international-transfers/transfer/index_en.htm).
- You (Patient and Physician) do have the following rights regarding personal data relating to you, which you can exercise at any time, e.g. through an email to dataprivacy@centogene.com:

  - Right to be provided with information about and to have access to the personal data stored on you;
  - Right to have the personal data stored on you rectified or erased;
  - Right to obtain restriction of processing your personal data;
  - **Right to object on grounds relating to your particular situation;**
  - Right to data-portability (i.e. receive personal data you provided to us in a structured, commonly used and machine-readable format); and
  - Right to withdraw your consent with effect for the future at any time.

- You have the right to lodge a complaint with a supervisory authority regarding the processing of your personal data.
- You may have further or modified rights under applicable national law, which remain unaffected.
- For a more detailed and regularly updated information about how we process personal data please visit our Data Protection Statement under www.centogene.com/data-protection.

Declaration of consent

GENETIC ANALYSIS FOR DISEASE: _____ (filled in by the physician)

By signing this declaration of consent I acknowledge that I have received, read and understood the preceding written explanation about genetic analyses.
I also received appropriate explanations (from my physician) regarding the genetic basis, the purpose, scope, type and significance of the planned genetic analysis and achievable results, possibilities of prevention/treatment of the possible disease as well as with regard to risks associated with collecting the sample required for the genetic analysis and the knowledge of the results of the genetic analysis. All my questions have been answered and I have had the necessary time to make an informed decision about the genetic analysis.

With my signature below I give my consent or consent on behalf of the patient for whom I am the legal guardian:

MANDATORY

(1) to the genetic analysis by CENTOGENE AG, Am Strande 7, 18055 Rostock, Germany, (CENTOGENE) for the disease stated above, (2) to the collection and processing by my physician and CENTOGENE of my "Personal (Health) Data" (meaning in particular and in each case insofar as provided: personal details (including name and address), family relations, age/date of birth, gender, ethnicity, nationality, insurance information, symptoms and other medical information, disease, the study material/sample with identifiable genetic data, the genetic analysis results and findings) as far as required to conduct the genetic analysis including any necessary transfers of my Personal (Health) Data between physician and CENTOGENE across national borders, (3) to the analysis of the obtained sample and its storage for 10 years at CENTOGENE together with my patient file to be able to verify results of the analysis if need be, (4) to add to my patient file or to files of family members and to use for the above purposes – if applicable – Personal (Health) Data on me or members of my family insofar as they have consented, (5) to inform me or my physician or – if CENTOGENE has been instructed by a laboratory acting on behalf of my physician – such laboratory about the results of the genetic analysis; and (6) to provide upon request to me, my physician or – as the case may be – the requesting laboratory, the raw data of the genetic analysis.

I am aware that I can withdraw my consent with effect for the future in full or in part at any time and that I have the right not to know the results of the genetic analyses as described in the preceding written explanation.

By ticking the relevant "YES/NO" boxes below, I give my additional consent or consent on behalf of the patient for whom I am the legal guardian to:

OPTIONAL

Reporting of incidental findings
Whole exome sequencing (WES) and whole genome sequencing (WGS) tests analyze numerous different genes at the same time. It is therefore possible that a genetic variant found in the genetic analysis is possibly not related to the cause for ordering the testing. These findings, known as incidental findings, can provide information unrelated to your reported clinical symptoms, but can be of medical value for your treatment in the future. I understand the significance of such incidental findings and consent to CENTOGENE reporting DNA variants of the specified classes or types in certain genes in accordance with the "ACMG Recommendations for Reporting of Incidental Findings". I understand that CENTOGENE, using its own discretion, may refrain from reporting the recommended incidental findings or additionally also report (other) non-ACMG recommended incidental findings, in each case because of additional scientific and medical information available in CENTOGENE's databases.

☐ YES
☐ NO

Further storage and use of my Personal (Health) Data and the sample
I understand that my Personal (Health) Data and (remaining) sample may help in further research, development and improvement of diagnostic methods and possibly therapeutic solutions. Such measures may in the future also enable and support medical advice and guidance to me and my family members, e.g. related to the diagnosis and treatment of a potential genetic disease.

- I agree that CENTOGENE stores (1) the Personal (Health) Data I provided and information on (affected) family members - if they consented - and the results of the genetic analysis and (2) my sample (including original and processed sample) for a period of 20 years and uses this data and the remaining samples for the purpose of internal research, improvement, development and validation of analysis procedures and related product and service developments.
- I agree that after a period of 20 years my Personal (Health) Data and (remaining) sample are anonymized and ownership in the sample is then transferred to CENTOGENE. Both will then remain in CENTOGENE's archives for use by CENTOGENE without restrictions.
- I agree that CENTOGENE may at any time process my anonymized or pseudonymized Personal (Health) Data, e.g. into its databases and datasets concerning genetic diseases, for the purpose of scientific and commercial research and to facilitate and contribute to the diagnosis of genetic changes and diseases of other patients. Access to such pseudonymised or anonymised data might be granted to external physicians, scientists and (pharmaceutical) companies for research and development purposes.
- I understand that I will not receive any compensation for the use of my Personal (Health) Data or sample by CENTOGENE.
- I understand that data in CENTOGENE's databases – once anonymized - cannot be destroyed upon request as it is unidentifiable and untraceable.

☐ YES
☐ NO

If the undersigning is the legal guardian of the Patient, he/she herewith to confirms to provide the above consent declarations not for himself/herself but on behalf of the respective patient.

Date	Name of Patient	Signature of Patient /Legal Guardian

I hereby confirm that the consent as shown above has been declared by the patient or (as the case may be) his/her parent or legal guardian and that I have his/her signature on file if it is not shown above. I confirm that the patient is capable of giving this consent (alternatively that the consent was given by a legal guardian of the patient), that all questions of the patient have been answered, that the patient had the necessary time to consider his/her decision and that the patient until now has not exercised his/her right not to know the results of the genetic analyses. I understand that the patient may request to have his/her genetic analyses results eliminated at any time and that I shall forward such requests to CENTOGENE without undue delay. I agree that my own personal data is stored in CENTOGENE's databases for organizational and invoicing purposes.

Date	Name of Physician	Signature of Physician

CENTOGENE AG
Am Strande 7
18055 Rostock, Germany

Contact Details
Phone: +49 (0) 381 80 113 - 416
Fax: +49 (0) 381 80 113 - 401
customer.support@centogene.com
www.centogene.com