NEXT BIOSCIENCES

# TriScreen
## Non-Invasive Prenatal Test (NIPT) Requisition Form

NG-CLI-NIPT-FRM-003-REV-007 | 2024.06.01

### Singleton Pregnancy Test Options

| ☐ TriScreen (Standard Panel) | ☐ TriScreen+ (All chromosomes) |
|---|---|
| Chromosome 21, 18, 13, X&Y | Includes segmental deletions and duplications >7Mb. Genetic Counselling is strongly recommended for all patients considering TriScreen+ |
| **Optional exclusions** | **Optional exclusions** |
| ☐ Do not report sex chromosmes<br>Please note: sex chromosomes and sex chromosome anomalies will not be reported | ☐ Do not report sex chromosmes<br>Please note: sex chromosomes and sex chromosome anomalies will not be reported |
| **Optional add-ons:** | **Optional add-ons:** |
| ☐ Include all Microdeletion syndromes*<br>☐ Include 22q11 microdeletion only (DiGeorge syndrome)<br>☐ Include Rhesus Testing | ☐ Include all Microdeletion syndromes* |

Please note: Samples with add-on testing are sent to the USA. Additional costs turn around time and special blood draw arrangements/logistics are required.

### Twin Pregnancy Test Options A

| ☐ TriScreen (Standard Panel) |
|---|
| Chromosome 21, 18, 13, X&Y |
| **Optional exclusions** |
| ☐ Do not include presence/absence of Y chromosome<br>Please note: sex chromosomes and sex chromosome anomalies will not be reported |

Available test options may vary in different countries.*Microdeletions includes the following syndromes: 22q11 deletion (DiGeorge); 15q11 deletion (Angelman/Prader-Willi); 1p36 deletion; 4p- (Wolf-Hirschhorn); 5p- (Cri-du-chat).
**Single gene NIPT available on request for the following conditions: cystic fibrosis, spinal muscular atrophy, sickle cell disease, alpha-thalassemia, and beta-thalassemia.

Gestational age: Weeks / days on DD / MM / YYYY

Was there a vanishing twin present at any time during this pregnancy? Yes* ☐ No ☐
*Blood draw recommended to be performed 4 weeks after vanishing twin last seen

**BMI**
Weight: Height:

**Date of blood draw:** DD / MM / YYYY **Blood draw notes:** **Collected by:**

**Test indications**

- ☐ Advanced maternal age
- ☐ Ultrasound anomaly
- ☐ IVF pregnancy
- ☐ Increased risk serum screen
- ☐ Patient concern/anxiety
- ☐ Recurrent pregnancy loss
- ☐ History of pregnancy with chromosome anomalies (specify)
- ☐ Other

**Risk stratification**

- ☐ High risk: >1:300
- ☐ Intermediate risk: 1:300 – 1:1000
- ☐ Low risk: <1:1000

Comments:

### Healthcare provider information B

Healthcare provider: Centre/clinic name:
Phone: Email for report:

I verify that the patient and prescriber information in this form is complete and accurate to the best of my knowledge and that I have ordered the non-invasive prenatal test, based on my professional judgment. I have addressed the limitations of this test and have answered any questions to the best of my ability. I understand that Next Biosciences may need additional information and I agree to provide it as needed.

Healthcare provider signature: Date: DD / MM / YYYY

### Additional reporting

Healthcare provider: Email for report:

### Patient information C

Last name: First name:
Phone: Email:
Date of birth: DD / MM / YYYY ID/passport no.:
Address:
Medical aid name: Medical aid no.:
Medical aid plan:

### Billing information

Person responsible for account: Contact no.:
ID/passport no.: Email:

By signing this form, I voluntarily request that Next Biosciences performs the non-invasive prenatal test. I have read the patient consent included on the back of this form. The risks, benefits, costs, and limitations of this test have been adequately explained to me. I authorise Next Biosciences to perform the necessary steps to obtain reimbursement for the prenatal test. I acknowledge that by Next Biosciences submitting my claim to my medical scheme for reimbursement, my medical scheme will become aware of my treatment and/or diagnosis. I acknowledge and agree to the costs of the genetic testing, and agree to settle any and all invoices issued to me by Next Biosciences, by the stipulated date.

Signature: Date: DD / MM / YYYY

**For next steps**, please send your form to **triscreen@nextbio.co.za.**
For any queries, complaints or feedback, please contact us on **+27 (0)11 697 2900** or email us on **triscreen@nextbio.co.za.**

## INTRODUCTION

This form describes the benefits, risks, and limitations of NIPT (incl. all add on's). You should seek pre-test counselling by an experienced healthcare provider prior to undergoing this test. This screening test utilises the Illumina NIPT technology; the test is performed at Next Biosciences, Johannesburg South Africa, at the Illumina laboratory, Foster City, California, or at the Billion to One referral laboratory in Menlo Park, California. Read this form carefully – and ask your healthcare provider any questions you may have— before making your decision about testing. Next Biosciences is able to refer you for genetic counselling through professional genetic counselling services if necessary.

## PURPOSE AND TEST OPTIONS

The purpose of NIPT (incl. all add on's) is to screen your pregnancy for certain chromosomal anomalies, also known as "aneuploidies". The tests can provide information about extra copies (trisomy) of certain chromosomes. Trisomy 21, trisomy 18, and trisomy 13 are three of the most commonly occurring trisomies seen in babies at birth. TriScreen and TriScreen+ can be performed as early as 10 weeks 0 days gestational age. Consult your healthcare providerif you would like more information about this screening test, including risks, limitations, performance data, error rates, descriptions of the conditions being screened, and what these results may mean to your pregnancy. The tests can provide information about the following chromosomes:

### TRISCREEN

- Trisomy 21, 18, and 13
- Optional: fetal sex, including sex chromosome anomalies

### TRISCREEN+

- Screens for aneuploidies (extra or missing copies) in all chromosomes as well as deletions or duplications of chromosome material 7Mb or larger (called segmental aneuploidies).
- Optional: fetal sex including sex chromosome anomalies
- This option is not available in twin pregnancies

## ADDITIONAL OPTIONS - MICRODELETION TESTING

(This test is performed at the Illumina laboratory, Foster City, California) Screening for the following microdeletions (small, missing parts of chromosomes) syndromes is also available: 1p36 deletion, 4p- (Wolf-Hirschhorn syndrome), 5p- (cri-du- chat syndrome), 15q11.2 (Prader-Willi syndrome/ Angelman syndrome), 22q11.2 deletion (DiGeorge syndrome or velocardiofacial syndrome).

## ADDITIONAL OPTIONS – RHESUS & 22Q11 DELETION (DIGEORGE SYNDROME) TESTING

This test is performed at the Billion to One referral laboratory in Menlo Park, California and is offered as a test send out.

## HOW THIS TEST WORKS

This test screens for specific chromosomal anomalies (aneuploidies) by looking at the cell-free placental DNA (genetic material) in your blood. During pregnancy DNA from the placenta circulates in the mother's bloodstream. The sample of blood includes a combination of maternal DNA and the DNA from the placenta. Fetal fraction is the term given to the proportion of cell-free DNA belonging to the placenta found in the mother's blood. A technology called massively parallel sequencing or next generation sequencing is used to count the amount of DNA from each chromosome being tested and/or from specific regions of chromosomes. The laboratory then uses an analysis method to determine if chromosomal aneuploidies are likely to be present or absent.

## SEX OF FETUS

Depending upon the option you and your healthcare provider elect, the test results may include the sex of the fetus. If you do not wish to know the sex, please tell your healthcare provider not to disclose this information to you. In rare instances, incorrect sex results can occur for example in the situation of a vanishing twin where residual DNA from the vanishing twin may persist.

## LIMITATIONS OF THE TEST

These tests are screening tests and not diagnostic. They do not replace the accuracy and precision of prenatal diagnosis with chorionic villus sampling or amniocentesis. **A patient with a positive test result should be referred for genetic counselling and offered invasive prenatal diagnosis for confirmation of test results.**

- A 'no anomaly detected' result does not guarantee a healthy pregnancy or baby and does not eliminate the possibility that your pregnancy may have birth defects, genetic conditions or other conditions, such as an open neural tube defect or autism. These tests may not accurately identify fetal triploidy or balanced chromosomal rearrangements.
- There is a possibility that the test results might not reflect the chromosomes of the fetus but may reflect chromosomal changes occurring in the placenta only (confined placental mosaicism, CPM) or of you (maternal chromosomal abnormalities).
- In addition, mosaicism may occur in which there is a combination of genetically normal and abnormal cells in the placenta and/or fetus that may occur at different percentages relative to each other and may influence the results of the test.
- These tests, like many tests, have limitations, including false negative and false positive results. This means that the chromosomal abnormality being tested for may be present even if you receive a negative result (this is called a 'false negative'), or that you may receive a positive result for the chromosomal abnormality being tested for, even though the abnormality is not actually present (this is called a 'false positive'). You confirm that you are aware of the limitations with these tests and that a 'false positive' or 'false negative' result may occur.
- In the case of a vanishing twin, the test result may reflect the DNA of the vanishing twin, leading to a higher probability of false positive or false negative results.
- In some cases, we may not be able to obtain a result, the causes of which may include among other, technical limitations or insufficient fetal fraction.
- Testing for whole chromosome aneuploidies (including sex chromosomes) and for segmental chromosome aneuploidies could lead to the potential discovery of both fetal and maternal genomic anomalies that could have major, minor, or no, clinical significance. Evaluating the significance of a positive or inconclusive result may involve both invasive testing and additional studies on the mother. Such investigations may lead to a diagnosis of maternal chromosome or segmental aneuploidies, which on occasion may be associated with benign or malignant maternal neoplasms.
- Some rare chromosomal aneuploidies may only occur in mosaic form. Clinical consequences depend on the chromosome involved and cannot be predicted prenatally.
- In the course of performing the analysis for the indicated tests, information regarding other chromosomal alterations, also known as "secondary findings" may become evident. Our policy is to NOT REPORT on any secondary findings that may be noted in the course of analysing the test data, but the information may be discussed with your healthcare provider.

**You must consult your healthcare provider for more information about your results and what they may mean for your pregnancy, what options you will have for further testing, and whether additional testing is recommended for you based on your clinical history. No irreversible clinical decisions should be made based on these screening results alone. If definitive diagnosis is desired, chorionic villus sampling or amniocentesis is necessary.**

## TEST PROCEDURE

A tube of your blood (single 10ml tube) will be drawn by a nurse or healthcare provider and sent to Next Biosciences, Johannesburg South Africa, the Illumina laboratory, Foster City, California or Billion to One referral laboratory in Menlo Park, California, which will then analyse the sample. Side effects of having blood drawn are uncommon, but may include dizziness, fainting, soreness, bleeding, bruising, and, rarely, infection. The test is performed after 10 weeks, 0 days of pregnancy.

After analysis the test results will be returned to your healthcare provider, who will discuss them with you as part of the ongoing management of your pregnancy. In the event of additional samples being required, Next Biosciences shall arrange for this to be done.

Additional samples may be required in the event of a quality control failure or when sample acceptance criteria is not met upon sample receipt. Sample acceptance criteria includes: At least 10 weeks gestational age, sample volume of >7ml, sample in correct non- expired tube, sample is not visibly compromised, sample clearly labelled, transit time does not exceed 5 days at room temperature.

## IMPORTANT POINTS ABOUT THE TESTING AND REPORTING PROCESS:

1. Your test results are confidential.
2. Your results will only be disclosed to your ordering healthcare provider(s) as listed on your test requisition form, which you consent to.
3. Only authorised and requested tests as per your test requisition form will be performed on your identifiable blood sample.
4. Your sample will be kept for a minimum 24 months. This is in line with international best practice.
5. Next Biosciences may from time to time collect information on your pregnancy after testing. As such, Next Biosciences may contact your healthcare provider to obtain this information, which you consent to.
6. Pursuant to best practices and clinical laboratory standards, leftover de-identified (anonymous) specimens as well as de-identified (anonymous) genetic and other information learned from your testing, may be used by Next Biosciences for purposes of quality control, laboratory operations, laboratory test development, and laboratory improvement, which you consent to. All such uses will be conducted in compliance with applicable laws.
7. Next Biosciences may also use your leftover specimen and health information, including genetic information, in an anonymised or de-identified form, for research purposes, which will be carried out in compliance with applicable law. Such uses may result in the development of commercial products and services. You consent to these uses and agree that you will not receive notice of any specific uses and you will not receive any compensation for these uses nor derive any benefit from any commercial products or services which may be developed arising from these uses.
8. You agree and accept that the maximum aggregate of all and any amounts which Next Biosciences may be liable for in respect of any claims arising from the testing services performed in terms of your test requisition form (whether to you or any third party), will be limited to the amount paid by you to Next Biosciences for such testing services.

## COMPLIANCE WITH THE PROTECTION OF PERSONAL INFORMATION ACT (POPIA):

- You understand that Next Biosciences takes the privacy of its patients very seriously and has implemented reasonable security measures to guard against the unauthorised disclosure of your private patient information (personal information) in line with the Protection of Personal Information Act (POPIA), and as more fully provided for in the Privacy Policy available at: https://nextbio.co.za/Legal/Privacy-Policy.
- You acknowledge that your personal information may be disclosed to Next Biosciences personnel, or to Next Biosciences, its affiliates, sub-contractors, and vendors, solely for the purposes of providing the testing services.
- You acknowledge that your personal information may be disclosed by Next Biosciences in response to a specific request by a law enforcement agency, subpoena, court order, or as required by law.
- You confirm that the personal information supplied by you is true and correct and that you are responsible for updating your information to ensure that it remains correct.
- You acknowledge that your personal information will be retained by Next Bisociences for the required retention periods applicable to the medical and healthcare industry.
- In providing the testing services to you, your personal information may be transferred outside of South Africa, which you agree and consent to. Next Biosciences has ensured that all information transferred is done in an encrypted format.
- Next Biosciences may from time to time provide you with marketing information relating to testing services which may be relevant to you personally. You agree and consent to Next Biosciences using your personal information for these purposes and to inform you about any changes to the testing services offered by any of the companies forming part of the Next Biosciences group of companies.
- By sharing personal information with Next Biosciences, you agree and consent to the use of your personal information as setout above and more fully set out in the Privacy Policy available at: https://nextbio.co.za/Legal/Privacy-Policy.
- You warrant that you are entitled to provide Next Biosciences with the information and data that you provide and you indemnify Next Biosciences against any claims of a data breach by a third party.