Actim[®] Partus

Simple bedside test for ruling out the risk of preterm or imminent delivery

Actim[®] Partus is a fast and accurate rapid test to identify patients with a risk of preterm delivery, even before the clinical signs are visible. The easy-to-use test can be used for pregnant women from week 22 until birth, and it is reliable even in the presence of interfering substances.

Many pregnant women experience preterm contractions which can be a sign of approaching delivery. A negative Actim Partus result indicates that imminent delivery is highly unlikely; lowrisk patients can thus return home, overtreatment is avoided, and valuable resources are saved.

Cervical phIGFBP-1 indicates preterm delivery

Actim Partus rapid test is based on unique and highly specific monoclonal antibodies that bind to the phosphorylated form of insulin-like growth factor binding protein-1 (phIGFBP-1). PhIGFBP-1 produced in the fetal decidua, leaks into the cervix when the decidua and chorion detach as a sign of approaching delivery.

The presence of phIGFBP-1 can be detected with a dipstick test even before these changes become clinically visible. This makes phIGFBP-1 a reliable marker for estimating the risk of preterm or imminent delivery.

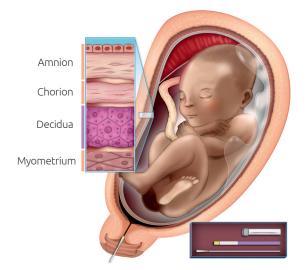


Figure 1. Actim Partus identifies the risk of preterm delivery (PTD) through a simple cervical swab sample.

Preterm delivery or harmless contractions?

Half of pregnant women experience symptoms, yet only 20% of these are at real risk of imminent or preterm delivery. Identifying patients who have harmless contractions can be difficult. In practise, this means that over-diagnosis and over-treatment are often the only option.



A positive Actim Partus test result

- A phIGFBP-1 concentration is 10 µg/l or more in the cervical fluid extract, meaning tissue damage.
- The patient has a higher risk of PTD and should be evaluated for treatment aiming at delaying the delivery or preparing the baby for delivery.
- Early identification of patients at real risk of PTD allows timely interventions.

Actim Partus supports clinical decision making by helping correct PTD diagnosis. **Patients who don't require immediate medical attention can be sent home, instead of treating all patients who have preterm contractions.** This saves time and cost for both the patient and hospital.



A negative Actim Partus test result

- phIGFBP-1 concentration is less than 10 µg/l in the extracted sample, meaning no significant tissue damage.
- The patient can be sent home unless otherwise clinically indicated, as delivery is highly unlikely within the next 1–2 weeks.
- Unnecessary treatments with potential side effects can be avoided, the mother is given peace of mind, and hospital resources are saved.
- More than 2/3 of the symptomatic women get a negative result.

Actim Partus rules out false alarms

Clinical evidence from multiple studies shows that Actim Partus has a very high negative predictive value (NPV), and is therefore a reliable tool to rule out the risk of imminent or preterm delivery. Its high sensitivity, in turn, makes it effective in predicting preterm or imminent delivery.

Because Actim Partus is specific to phIGFBP-1, tests can be completed even in the presence of semen, urine, infections, and medical products.

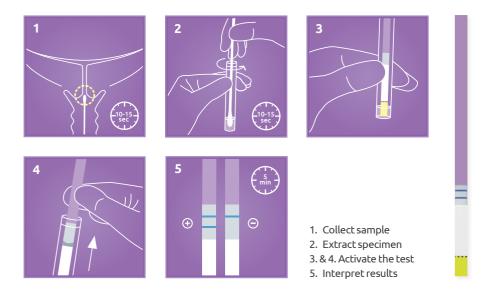
| Reference | n | GA (wk) | End point | Sensitivity | Specificity | PPV | NPV |
|----------------------------|-----|---------|-----------|-------------|-------------|------|------|
| Tripathi et al., 2016 | 468 | 28–36 | 7 d | 95 % | 92 % | 86 % | 97 % |
| Azlin et al., 2010 | 51 | 24–36 | 7 d | 80 % | 94 % | 57 % | 98 % |
| Brik Spinelli et al., 2010 | 276 | 24–34 | 7 d | 73% | 66 % | 22 % | 95 % |
| Tanir et al., 2009 | 68 | 24–37 | 7 d | 93 % | 79% | 56 % | 98 % |
| | | | 14 d | 61 % | 80 % | 68 % | 74 % |
| Eroglu et al., 2007 | 51 | 24–35 | 7 d | 83 % | 84 % | 42 % | 97 % |
| Ting et al., 2007 | 94 | 24-34 | 7d | 69 % | 78 % | 39 % | 92 % |
| | | | 14 d | 72 % | 80 % | 46 % | 92 % |
| Lembet et al., 2002 | 36 | 20–36 | 7 d | 94 % | 85 % | 83 % | 94 % |

 Table 1. Clinical evidence of Actim Partus as a predictor of imminent delivery.

 Table 2. Clinical evidence of Actim Partus as a predictor of preterm delivery before week 32–37.

| Reference | n | GA (wk) | End-point | Sensitivity | Specificity | PPV | NPV |
|----------------------------|-----|---------|------------|-------------|-------------|------|------|
| Tripathi et al., 2016 | 468 | 28–36 | < 37 weeks | 81 % | 97 % | 95 % | 88 % |
| | | | < 34 weeks | 94 % | 89 % | 78 % | 97 % |
| Riboni et al. 2011 | 210 | 24-34 | < 34 weeks | 64 % | 86 % | 24 % | 97 % |
| Brik Spinelli et al., 2010 | 276 | 24–34 | < 32 weeks | 76 % | 66 % | 18 % | 96 % |
| Tanir et al., 2009 | 68 | 24–37 | < 34 weeks | 70 % | 75 % | 48 % | 89 % |
| Eroglu et al., 2007 | 51 | 24–35 | < 35 weeks | 70 % | 88 % | 58 % | 92 % |
| Akercan et al., 2004 | 45 | 24–36 | < 37 weeks | 78 % | 87 % | 73 % | 90 % |
| Lembet et al., 2002 | 36 | 20–36 | < 37 weeks | 90 % | 94 % | 94 % | 89 % |

Fast results at the bedside in minutes



Actim Partus 1ngeni for digital pregnancy monitoring

Quantitative confidence for prediction of preterm delivery

The next-generation Actim Partus 1ngeni not only detects or rules out the risk of preterm or imminent delivery, but also provides precise data about the severity of the risk. The higher the concentration, the higher the risk.

Actim Partus 1 ngeni test results are quantified and interpreted, displayed and stored automatically and consistently by using the Actim 1 ngeni instrument.



Actim Partus is already in use all over the world, and it has been included in several national treatment guidelines.

Actim Partus can be used **from week 22 onwards** when fetal membranes are intact.

> Actim Partus is a **one-step** dipstick test, and gives **results in just 5 minutes** with sampling completed in seconds.

Most women remain sexually active during pregnancy, and because **intercourse and semen do not interfere** with the Actim Partus results, there is no need to rule out these patients.

> Actim Partus test results **are not affected** by vaginal medicatons, infections, or various other interfering factors.

Contact us

Ordering information

| Actim Partus 10 test kit | 31931ETAC | | | |
|---------------------------------|------------|--|--|--|
| Actim Partus 1 test | 31930ETAC | | | |
| Actim Partus Controls | 31900ETAC | | | |
| | | | | |
| Actim 1ngeni Instrument | 19101AC | | | |
| Actim Partus 1ngeni 10 test kit | 31931RETAC | | | |

${}_{\mathcal{O}}^{\mathcal{O}}$ Combine Actim Partus with Actim PROM

The most accurate test for detecting premature rupture of fetal membranes.

Actim Oy

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Selected references

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The full reference list can be found on our website.



Test kit contains all necessary materials and can be stored at room temperature.