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| **Kleihauer (Cord / Maternal Testing)** | | | |
| **Synonyms** | |  |  |
| **Clinical Indication** | |  | To determine the presence of foetal cells in maternal circulation.  Mother must be Rh negative and / or have suffered an injury likely to cause foetal / maternal haemorrhage. |
| **Part of Profile / See Also** | |  |  |
| **Request Form** | |  | Separate request forms for Maternal sample and Cord Sample |
| **Availability / Frequency of Analysis** | |  | On request |
| **Turnaround Time** | |  | Within 72 hours. |
| **Patient Preparation** | |  |  |
| **Sample Requirements** | |  |  |
|  | **Specimen Type** |  | Whole Blood (Maternal and Cord samples) Cord blood when available (post partum) |
|  | **Volume** |  | 1 x 6ml EDTA + 1 x 4ml EDTA – Maternal samples  1 x 4 ml EDTA – Cord sample (if post partum) |
|  | **Container**  Basildon site  Southend Site  Both Sites |  | Purple top (EDTA) tube.  Pink Top (EDTA) tube.  4ml EDTA    **Cord samples must be collected immediately post partum and mother's samples should be collected a minimum of 30-45mins post delivery to allow full circulation of any foetal blood.** |
| **Reference Range & Units** | |  |  |
| **Interferences** | |  | False negatives due to lack of full circulation of foetal cells in the mother. |
| **Interpretation & Clinical**  **Decision Value (if applicable)** | |  | This is a screening test used to determine the number of foetal cells present in maternal circulation. A count of less than 10 cells per low power microscope field is indicated to be normal and a single dose of Anti D (given to a mother with a Rh positive child) is sufficient to destroy the circulating foetal cells of any unexpected bleeds and any incidences where placenta integrity could be damaged. A standard dose of 1500 I.U. of Anti D Gamma Globulin, will cover up to a 12 ml bleed, 500 I.U. will cover up to a 5ml bleed.  A dose of 1500 i.u. is issued to RhD Negative women who give birth to RhD Positive babies at Basildon hospital. A dose of 500 i.u. is issued to RhD Negative women who give birth to RhD Positive babies at Southend hospital.  Any positive screens on RhD Negative mothers are sent to NHSBT RCI laboratory for confirmation and to assess if subsequent doses of anti D Gamma Globulin are needed. \*  This test may also be used in cases of abdominal trauma during pregnancy, when a foetal bleed may be suspected. In such cases, if anti-D is required, the dosage is 250 i.u. if less than 20 weeks gestation or 500 i.u. if greater than 20 weeks gestation.  1500 i.u. Prophylaxis is given at 28 weeks gestation routinely. |
| **References** | |  |  |
| **Test code** | |  |  |
| **Lab Handling** | |  |  |

\*Referral laboratory notification on 03.04.2025: NHSBT Red Cell Immunohaematology laboratories have transitioned technology from the Beckman Coulter Navios to the Beckman Coulter DxFLEX for fetomaternal haemorrhage investigation.We have successfully completed an extension to scope for this technology at our Barnsley site and are currently applying to add Filton, Colindale and Liverpool laboratories to our UKAS scope of accreditation. Whilst this extension to scope is being processed, the DxFLEX technology is not yet UKAS accredited at Filton, Colindale or Liverpool and is not yet listed on our UKAS Schedule of Accreditation (8740).  Please continue to refer samples as per standard procedures.