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(54) Title: FOETAL NUCLEATED RED BLOOD CELL DETECTION

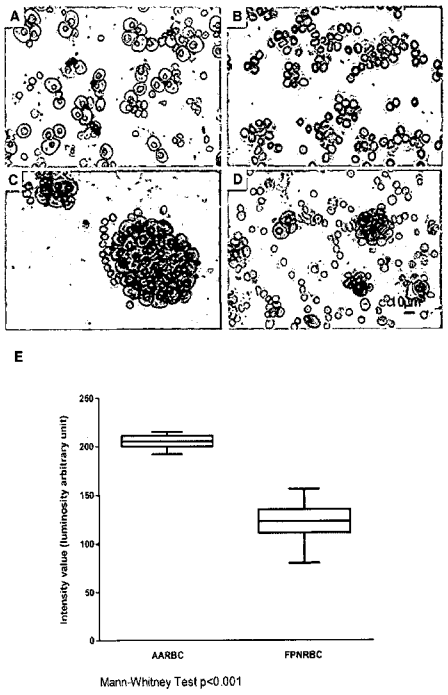


FIGURE 1

(57) Abstract: In one aspect, the invention is directed to methods of separating foetal nucleated red blood cells (FNRBCs) from a sample comprising contacting the sample with an agent that specifically recognizes CD147, thereby producing a mixture; maintaining the mixture under conditions in which a complex forms between the agent and the CD147 in the sample; and separating the complex from the mixture; thereby separating the FNRBCs from the sample. In other embodiments, the invention is directed to methods of detecting FNRBCs in a sample comprising contacting the sample with an antibody or antigen binding fragment thereof that specifically binds CD147, thereby producing a combination; maintaining the combination under conditions in which an immune complex forms between the antibody and FNRBCs present in the sample; and detecting whether the immune complex forms in the combination; wherein if the immune complex is detected then FNRBCs are present in the sample. In still other aspects, the invention further comprises methods of sparating FNRBCs from anucleated RBCs, detecting prenatal disorders and/or the gender of a foetus.

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