

Human placental immunoglobulins show unique re-association patterns with isologous and third party acid treated trophoblast microvesicles in vitro

Abstract:

To study re-association pattern of human placental eluate immunoglobulins with acid treated isologous and third party trophoblast derived placental microvesicles. DESIGN: Laboratory based experimentation. SETTING: Biological Sciences Department and Discipline for Reproductive Medicine University of Newcastle, Australia and the Department of Biochemistry, University of Nairobi, Kenya. RESULTS: Placental eluate immunoglobulins re-associated with isologous and third party acidified microvesicles in three distinct patterns. I: eluate immunoglobulins re-associated more strongly with isologous and third party acid treated placental microvesicles, II: eluate immunoglobulins re-associated strongly with isologous but weakly with third party acid treated placental microvesicles, III: eluate immunoglobulins did not show preferential re-association with isologous and third party acid treated placental microvesicles. CONCLUSION: Two types of antigenic epitopes I and II may be expressed on the human placenta. Type I antigens may be present on all human placenta while type II epitopes may be paternally derived hence unique to each pregnancy. Also, immunoglobulins produced to placental microvesicle antigens may be directed to some but not all antigenic epitopes expressed on the human placental trophoblast.