Early Diagnosis of Preeclampsia (Yissum)

code: 6-2006-1698

Eli Keshet, HUJI, Faculty of Medicine, Molecular biology

Enables detection from 15-17th week of pregnancy

Categories	Antibodies, Diagnostics
Development Stage	Proof of concept in human placentas
Patent Status	Patents filed US and Japan Israel, Europe and Canada
Market Size	2004 musculoskeletal medical devices sales $22.4 billion worldwide

Highlights

- Diagnostic for early detection of preeclampsia in blood of pregnant women
- Clinical symptoms of preeclampsia usually begin to be manifested from week 20
- Studies in healthy and preeclampsic human placentas
- Detected protein in human serum from weeks 15-17 – proof of concept for ELISA tests

Our Innovation

A human-specific splicing variant of VEGF receptor 1 (Flt1) was discovered, producing a soluble receptor (designated sFlt1-14) that is qualitatively different from the previously described soluble receptor (sFlt1), and functioning as a potent VEGF inhibitor. Expression of sFlt1-14 is dramatically elevated in the placenta of women with preeclampsia (PE). Two antibodies to the human-specific isoform of the gene responsible for preeclampsia were produced.

Key Features

- Simple blood test to demonstrate presence of condition from 15th week of pregnancy
- Enables increased prenatal vigilance before onset of clinical symptoms to protect both fetus and maternal organs

Development Milestones

Successful detection of protein in blood of pregnant women 3-5 weeks before onset of clinical symptoms

The Opportunity

Preeclampsia affects both the mother and the unborn baby in 5-8% of all pregnancies and is a leading global cause of maternal and infant illness and death. By conservative estimates, preeclampsia and other hypertensive disorders of pregnancy are responsible for 76,000 deaths each year.

Contact for more information:

Shoshana Keynan, VP, Head of Business Development, Healthcare, +972-2-6586683

Yissum Research Development Company of the Hebrew University of Jerusalem

Hi-Tech Park, Edmond J. Safra Campus, Givat-Ram, Jerusalem P.O. Box 39135, Jerusalem 91390
Israel Telephone: 972-2-658-6688, Fax: 972-2-658-6689