

Diagnostic Panel of Modified Proteins for Breast Cancer

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Categories:

- Chemistry and Chemical Analysis
- Medical/Health

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- Breast Cancer
- Cancer
- Cancer Screening
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- Diagnostics
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Breast cancer is the most frequently diagnosed cancer in women in the U.S. and Europe and the second leading cause of cancer deaths in American women. Early intervention and treatment will produce healthier, more successful outcomes for patients. Diagnostic markers are important for prognosis, diagnosis, and monitoring disease and changes in health status. Diagnostic markers are important for predicting and monitoring response to treatment and selecting appropriate treatment. Identifying these health issues accurately is extremely important for correct treatment. Improved diagnostics would greatly improve the health of these women. Unfortunately, there are currently no effective biomarkers reported that can differentiate between a benign or malignant breast lesion or tumor that has been visually detected by an imaging method.

Researchers at Purdue University have developed a diagnostic panel of modified proteins for breast cancer. The breast cancer diagnosis may be a determination of whether a breast tissue lesion or tumor is benign or malignant. The diagnostic breast cancer panel provides a method for diagnosing a malignant tumor based on a blood test. Using this diagnostic method as a screening test is a promising advancement for people who are susceptible to developing breast cancer, need periodic monitoring after surgery, or possess a high genetic risk for the disease. Early diagnosis and identification of the disease and changes in health status may permit earlier intervention and treatment that will produce healthier, more successful outcomes for patients.

Advantages:

- Breast cancer diagnostic markers
- Distinguishes between benign or malignant tumors and skin lesions
- Early diagnosis may permit earlier intervention and treatment

Potential Applications:

- Breast cancer screening test
- Breast cancer diagnostic test
- Monitor treatment effectiveness

Related Publications:

Chen, I-Hsuan, et al. Phosphoproteins in Extracellular Vesicles as Candidate Markers for Breast Cancer. Proceedings of the National Academy of Sciences of the United States of America. 2017, 114 (12), pp 3175-3180. DOI10.1073/pnas.1618088114.

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