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# United States Patent [19]

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**Rakowicz-Szulczynska**

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[54] **DETECTION AND TREATMENT OF BREAST AND GYNECOLOGICAL CANCER**

WO 93/07259 4/1993 WIPO ..... C12N 7/00

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### [57] **ABSTRACT**

The present invention provides methods for detecting the presence of HIV-I-crossreactive breast and gynecological cancer-associated antigens in biological samples and to methods for treating these cancers. In a preferred embodiment, these methods utilize a monoclonal antibody developed against a synthetic peptide corresponding to the variable domain of the Human Immunodeficiency Virus (HIV-I) envelope protein gp120 (amino acid regions 308-322). Regions of homology between HIV-I and breast and gynecological cancer sequences are identified as are methods for diagnosis and treatment based on the conserved genetic sequences.

### **Related U.S. Application Data**

[63] Continuation-in-part of application No. 08/138,141, Oct. 15, 1993, abandoned.

[51] **Int. Cl.<sup>6</sup>** ..... **G01N 33/574**; G01N 33/48; C07K 16/00

[52] **U.S. Cl.** ..... **435/7.23**; 436/63; 436/64; 530/388.35

[58] **Field of Search** ..... 435/7.23; 436/63, 436/64; 530/388.35

### **References Cited**

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**10 Claims, 12 Drawing Sheets**