

Serological Identification of a Novel Cancer/Testis Antigen Using Human Testis cDNA Expression Library

Yung-Jue Bang, M.D., Ph.D.

Cancer Research Institute, Seoul National University College of Medicine
Seoul, Korea

SEREX (serological identification of recombinantly expressed genes) technique was applied to identify novel tumor-specific antigens from a human testis cDNA library using human sera from patients with gastric cancer. We cloned and sequenced a novel gene whose expression is testis/cancer specific. It contains DEAD box domain and encodes a putative protein of 630 amino acids. The corresponding gene was named CAGE (cancer-associated gene). PCR of human x hamster RH clones localized this gene on the human chromosome Xp22. The CAGE gene was expressed in a wide variety cancer cell lines and tissues including gastric, lung, hepatocellular, breast and cervical cancers. We are investigating the clinical usefulness of this gene to develop novel diagnostic and therapeutic methods.