

عنوان مقاله:

Beta-Secretase 1 (BACE1) Is Down-Regulated in Invasive Ductal Carcinoma of Breast

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 8، شماره 2 (سال: 1398)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Hajar Yaghoobi - *University of Medical Sciences, Shahrekord, Iran. & Department of Medical Biotechnology, School of Advanced Technologies, Shahrekord University of Medical Sciences, Shahrekord, Iran*

Hakim Azizi - *Department of Medical Parasitology, School of Medicine, Zabol University of Medical Sciences, Zabol, Iran*

Mehdi Banitalebi-Dehkordi - *University of Medical Sciences, Shahrekord, Iran*

Fatemeh Mohammad Rezaei - *Department of Medical Genetic, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran*

Shahram Arsang-Jnag - *Clinical Research Development Center (CRDU), Qom University of Medical Sciences, Qom, Iran*

Mohammad Taheri - *Urogenital Stem Cell Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

Soudeh Ghafouri-Fard - *Department of Medical Genetics, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

خلاصه مقاله:

Background: The enzyme beta-secretase 1 (BACE1) and its antisense transcript (BACE1-AS) have been implicated in the pathogenesis of Alzheimer's disease. Moreover, several lines of evidence point to their contribution in tumorigenesis. Methods: In the present study, we evaluated expression of BACE1 mRNA (BACE1) and BACE1-AS in 54 breast cancer tissues and 54 adjacent non-cancerous tissues (ANCTs) from the same patients using quantitative real-time PCR. Results: BACE1 was significantly down-regulated in tumoral tissues compared with ANCTs, while BACE1-AS expression was not significantly different between tumoral tissues and ANCTs. The Bayesian Multilevel model showed a significant difference in BACE1 expression between stage 1 and 2 cancers after age-effect adjustments. BACE1-AS expression was significantly greater in ER-positive than in ER-negative samples ($P=0.01$). BACE1 and BACE1-AS expression were not correlated with patient ages in any sample sets. Conclusions: Significant correlations were detected between expression of these genes in both tumoral tissues and ANCTs. The current study provides evidence for differential BACE1 expression in breast tissues and suggests further assessment of the role of BACE1 in the pathogenesis of cancer.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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