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HMGA1 overexpression is associated with a particular subset of human breast carcinomas.

[Sepe R](#)¹, [Piscuoglio S](#)², [Quintavalle C](#)³, [Perrina V](#)³, [Quagliata L](#)³, [Formisano U](#)¹, [Terracciano LM](#)³, [Fusco A](#)⁴, [Pallante P](#)¹.

[Author information](#)

Abstract

OBJECTIVES:

Breast cancer represents the second leading cause of cancer mortality among American women and accounts for more than 40 000 deaths annually. High-mobility group A1 (HMGA1) expression has been implicated in the pathogenesis and progression of human malignant tumours, including breast carcinomas. The aim of this study was to evaluate HMGA1 detection as an indicator for the diagnosis and prognosis of human breast carcinoma.

METHODS:

HMGA1 expression has been analysed by immunohistochemistry in a large series of breast carcinoma resections (1338) combined on a tissue microarray mainly including the ductal carcinoma variant. The results were then correlated with clinicopathological parameters of patients.

RESULTS:

HMGA1 overexpression was found in the large majority of breast carcinoma samples and its overexpression positively correlated with HER-2/neu amplification and progesterone receptor, while a negative correlation was found with oestrogen receptor. Conversely, no HMGA1 expression was found in normal breast tissues.

CONCLUSIONS:

The data reported here indicate that HMGA1 is overexpressed in human breast carcinomas and its levels are associated with a particular endocrine status.

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KEYWORDS:

BREAST CANCER; CARCINOMA; IMMUNOHISTOCHEMISTRY