We are IntechOpen, the world’s leading publisher of Open Access books
Built by scientists, for scientists

4,300
Open access books available

117,000
International authors and editors

130M
Downloads

154
Countries delivered to

TOP 1%
Our authors are among the most cited scientists

12.2%
Contributors from top 500 universities

WEB OF SCIENCE™
Selection of our books indexed in the Book Citation Index in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com
Abstract

Mammary Serine Protease Inhibitor (Maspin) is a unique member of the serpin family with tumor suppressive properties. Maspin is a secreted protein encoded by a class II tumor suppressor gene, expressed in normal prostate luminal and basal cells but reduced or absent in prostate cancer. Currently, there is a consensus that maspin expression in prostate cancer is an indicator of a better prognosis and is a predictive marker for therapeutic response in prostate cancer. Experimental evidence consistently indicates that maspin suppresses tumor growth, invasion, and metastasis and promotes apoptosis in cancer cells. In this chapter, we discuss regulation of maspin expression, binding partners of maspin, and pathways through which maspin exerts its tumor suppressive properties. In addition, we summarize the progress that investigators have made in clarifying the role of maspin in prostate cancer biology and in assessing its role as a diagnostic marker and therapeutic agent.

Keywords: tumor suppressor, prognostic marker, SERPINB5, prostate cancer, maspin

1. Introduction

Mammary Serine Protease Inhibitor or Maspin (SERPINB5 or PI5 Homo sapiens) is a 42 kDa, non-classical, non-inhibitory member of the ovalbumin clade of serine protease inhibitors (serpins), encoded by the SERPIN5 gene [1]. Chromosome 18 encodes maspin along with gene cluster of other serpins in humans comprising squamous cell carcinoma antigens (SCCAs) 1 and 2 and plasminogen activator inhibitor type 2 (PAI-2) [1, 2]. Maspin has been characterized as a class II tumor suppressor gene, first recognized in 1994, in normal mammary tissue and breast...


References


References


References


References


References


References


References


References


