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Title (English)

Epigenetic studies of SHP1, SHP2, SOCS1, SOCS3 and STAT1 in esophageal and lung cancer

Title (Swedish)

Abstract

Aberrant DNA methylation is a hallmark of cancer. The tumor suppressor genes SHP1, SHP2, SOCS1 and SOCS3 and the transcription factor STAT1 have shown aberrant methylation in several tumors. In this report we have investigated their methylation and protein expression status in human cancer cell lines from esophageal (EC) and lung cancer (LC). We show that SHP1 SOCS1 and SOCS3 were highly methylated in several EC and LC cell lines, whereas SHP2 and STAT1 were not methylated in any EC or LC cell line. Furthermore, the methylation of the promoter region 1 of SHP1 was associated with protein expression reduction in both the EC and LC cell lines.

Keywords

EC, LC, CpG methylation, protein expression, SHP1, SHP2, SOCS1, SOCS3, STAT1.

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