WHAT IS CLAIMED IS:

1. An *ex vivo* method for assessing whether a subject has an endometrial carcinoma, comprising determining a methylation state of at least one target gene as a biomarker in a sample from a subject, wherein the sample has been derived from cervical scraping cells of the subject, the at least one target gene comprises BHLHE22 and at least one of CDO1 and CELF4, and the hypermethylation of the biomarker is an indication that the subject has the endometrial carcinoma.

2. The method according to claim 1, wherein the at least one target gene further comprises at least one of ADARB2, CLVS2, GATA4, HOXA9, MTMR7, NTM, PRKCDBP, TBX5, THY1, and ZNF662.

3. The method according to claim 1, wherein the at least one target gene comprises BHLHE22, CDO1, THY1, CELF4, CLVS2, GATA4, NTM, PRKCDBP, and TBX5.

4. The method according to claim 1, wherein the endometrial carcinoma is a type I endometrial carcinoma.

5. The method according to claim 1, wherein the endometrial carcinoma is a type II endometrial carcinoma.