

What is claimed is:

- 1. A method for the diagnosis of adenocarcinoma and determining metastatic ability of human cancer in an individual which comprises the step of determining the increased levels of macrophage migration inhibitory factor within tumor cells.
- 2. The method of claim 1 wherein tumor cells are derived from tissue.
- 3. The method of claim 2 wherein said tissue is prostatic tissue.
- 4. The method of claim 1 including the step of obtaining ribonucleic acid from the tissue of the individual.
- 5. The method of claim 1 wherein macrophage migration inhibitory factor levels are determined by enzyme linked immunosorbent assay.
- 6. The method of claim 1 wherein macrophage migration inhibitory factor levels are determined by immunohistochemistry.
- 7. The method of claim 1 wherein macrophage migration inhibitory factor levels are determined by messenger ribonucleic acid levels.
- 8. The method of claim 7 wherein macrophage migration inhibitory factor messenger ribonucleic acid levels are determined by reverse transcription polymerase chain reaction.

- 9. The method of claim 7 wherein macrophage migration inhibitory factor messenger ribonucleic acid levels are determined by Northern blot analysis.
- 10. The method of claim 1 wherein the macrophage migration inhibitory factor determined comprises a gene fragment having a length of 166 base pairs which is not present in normal prostatic tissue.
- 11. A kit for determining the level of macrophage migration inhibitory level in cells comprising: a) a carrier compartmentalized to receive one or more container means therein, b) a first container means comprising oligonucleotide primer for binding cDNA; selected from the group consisting of T₁₂ CT 5'-dT₁₂TTTTTTTTTTTTTCT-3' and 5'-TGTAGACCCT-3' (SEQ ID NOS: 2 and 1) c) a second container means comprising ingredients for differential display polymerase chain reaction for amplification of the cDNA and means for comparing levels of macrophage migration inhibitory factor so as to determine metastatic ability of human cancer.

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