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(54) Titre : NOUVEAUX PROCEDES DE DIAGNOSTIC DU CANCER COLORECTAL METASTATIQUE, COMPOSITIONS  
ET PROCEDES DE CRIBLAGE DES MODULATEURS DU CANCER COLORECTAL METASTATIQUE  
(54) Title: NOVEL METHODS OF DIAGNOSIS OF METASTATIC COLORECTAL CANCER, COMPOSITIONS AND  
METHODS OF SCREENING FOR MODULATORS OF METASTATIC COLORECTAL CANCER

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WHAT IS CLAIMED IS:

- 1           1.       A method of detecting a metastatic colorectal cancer-associated  
2 transcript in a cell from a patient, the method comprising contacting a biological sample from  
3 the patient with a polynucleotide that selectively hybridizes to a sequence at least 80%  
4 identical to a sequence as shown in Tables 1-26.
- 1           2.       The method of claim 1, wherein the biological sample comprises  
2 isolated nucleic acids.
- 1           3.       The method of claim 1, wherein the polynucleotide is labeled.
- 1           4.       The method of claim 1, wherein the polynucleotide is immobilized on  
2 a solid surface.
- 1           5.       An isolated nucleic acid molecule consisting of a polynucleotide  
2 sequence as shown in Tables 1-26.
- 1           6.       An expression vector comprising the nucleic acid of claim 5.
- 1           7.       A host cell comprising the expression vector of claim 6.
- 1           8.       An isolated polypeptide which is encoded by a nucleic acid molecule  
2 having polynucleotide sequence as shown in Tables 1-26.
- 1           9.       An antibody that specifically binds a polypeptide of claim 8.
- 1           10.      The antibody of claim 10, which is an antibody fragment.
- 1           11.      The antibody of claim 10, which is a humanized antibody
- 1           12.      A method of detecting a metastatic colorectal cancer cell in a  
2 biological sample from a patient, the method comprising contacting the biological sample  
3 with an antibody of claim 9.
- 1           13.      The method of claim 12, wherein the antibody is labeled.
- 1           14.      A method of detecting antibodies specific to metastatic colorectal  
2 cancer in a patient, the method comprising contacting a biological sample from the patient  
3 with a polypeptide encoded by a nucleic acid comprises a sequence from Tables 1-26.

15. A method for identifying a compound that modulates a metastatic colorectal cancer-associated polypeptide, the method comprising the steps of:
- (i) contacting the compound with a metastatic colorectal cancer-associated polypeptide, the polypeptide encoded by a polynucleotide that selectively hybridizes to a sequence at least 80% identical to a sequence as shown in Tables 1-26.; and
  - (ii) determining the functional effect of the compound upon the polypeptide.
16. The method of claim 15, wherein the functional effect is determined by measuring ligand binding to the polypeptide.
17. A method of inhibiting proliferation of a metastatic colorectal cancer-associated cell to treat colorectal cancer in a patient, the method comprising the step of administering to the subject a therapeutically effective amount of a compound that modulates a polypeptide encoded by a sequence as shown in Tables 1-26.
18. A drug screening assay comprising the steps of
- (i) administering a test compound to a mammal having colorectal cancer or a cell isolated therefrom;
  - (ii) comparing the level of gene expression of a polynucleotide that selectively hybridizes to a sequence at least 80% identical to a sequence as shown in Tables 1-26. in a treated cell or mammal with the level of gene expression of the polynucleotide in a control cell or mammal, wherein a test compound that modulates the level of expression of the polynucleotide is a candidate for the treatment of colorectal cancer.
19. A pharmaceutical composition for treating a mammal having colorectal cancer, the composition comprising a compound identified by the assay of claim 18 and a physiologically acceptable excipient.
20. A method of detecting a metastatic colorectal cancer-associated polypeptide in a cell from a patient, the method comprising contacting a biological sample from the patient with a antibody that that specifically binds a polypeptide encoded by a nucleic acid molecule having polynucleotide sequence as shown in Tables 1-26.
21. The method of claim 21, wherein the antibody is labeled.

## PATENT COOPERATION TREATY

## PCT

## DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rule 13ter.1(c) and 39)

Applicant's or agent's file reference 18501-8-4PC	<b>IMPORTANT DECLARATION</b>	Date of mailing (day/month/year) <b>13 JAN 2003</b>
International application No. PCT/US02/06001	International filing date (day/month/year) [27 February 2002 (27.02.2002)] <sup>14 January 2002</sup> (14.01.2002)	(Earliest) Priority date (day/month/year) 27 February 2001 (27.02.2001)
International Patent Classification (IPC) or both national classification and IPC IPC(7): C12Q 1/68; G01N 33/53; A61K 31/70 and US Cl.: 435/6, 7.1; 514/44		
Applicant EOS BIOTECHNOLOGY, INC.		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below.

1.  The subject matter of the international application relates to:
- a.  scientific theories.
  - b.  mathematical theories
  - c.  plant varieties.
  - d.  animal varieties.
  - e.  essential biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
  - f.  schemes, rules or methods of doing business.
  - g.  schemes, rules or methods of performing purely mental acts.
  - h.  schemes, rules or methods of playing games.
  - i.  methods for treatment of the human body by surgery or therapy.
  - j.  methods for treatment of the animal body by surgery or therapy.
  - k.  diagnostic methods practised on the human or animal body.
  - l.  mere presentations of information.
  - m.  computer programs for which this International Searching Authority is not equipped to search prior art.
2.  The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
- the description       the claims       the drawings
3.  The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:
- the written form has not been furnished or does not comply with the standard.
- the computer readable form has not been furnished or does not comply with the standard.

4. Further comments:

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