CLAIMS

1. Use of a histone isoform associated with a cell free nucleosome as a biomarker in a body fluid sample for the diagnosis of cancer.

2. The use as defined in claim 1 wherein the cell free nucleosome is a mononucleosome or an oligonucleosome.

3. The use as defined in claim 1 or claim 2 wherein the histone isoform associated with a cell free nucleosome is measured in a blood sample.

4. The use as defined in any one of claims 1 to 3, wherein the cancer is a cancer of the bladder, breast, colon, cervix, esophagus, kidney, large intestine, lung, oral cavity, ovary, pancreas, prostate, rectum, skin or stomach.

5. A method for detecting the presence of a histone isoform associated with a cell free nucleosome in a body fluid sample which comprises the steps of:

(i) contacting the body fluid sample with a binding agent which binds to the histone isoform;

(ii) detecting or quantifying the binding of said binding agent to the histone isoform in the body fluid sample; and

(iii) using the presence or degree of such binding as a measure of the presence of the histone isoform or nucleosomes containing the histone isoform in the body fluid sample.

6. A method for detecting the presence of a histone isoform associated with a cell free nucleosome in a body fluid sample which comprises the steps of:

(i) contacting the body fluid sample with a first binding agent which binds to nucleosomes;

(ii) contacting the nucleosomes or body fluid sample with a second binding agent which binds to the histone isoform;

(iii) detecting or quantifying the binding of said second binding agent to the histone isoform in the body fluid sample; and

(iv) using the presence or degree of such binding as a measure of the presence of nucleosomes containing the histone isoform in the body fluid sample.

7. A method for detecting the presence of a histone isoform associated with a cell free nucleosome in a body fluid sample which comprises the steps of:

(i) contacting the body fluid sample with a first binding agent which binds to the histone isoform;

(ii) contacting the nucleosomes or body fluid sample with a second binding agent which binds to nucleosomes;

(iii) detecting or quantifying the binding of said second binding agent to nucleosomes in the body fluid sample; and

(iv) using the presence or degree of such binding as a measure of the presence of nucleosomes containing the histone isoform in the body fluid sample.

8. The method as defined in any one of claims 5-7 wherein the histone isoform is a common histone isoform that occurs in all or most nucleosomes to test for nucleosomes *per se*.

9. The method as defined in any one of claims 5-8 wherein the binding agent used to bind a histone is targeted to bind a region of the said histone that is common to all or most histone isoforms of the said histone moiety and occurs in all or most nucleosomes to test for nucleosomes *per se*.

10. A method as defined in any one of claims 5 to 9 wherein the binding agent is an antibody.

11. A method according to any one of claims 5 to 10 wherein the body fluid is selected from blood, serum or plasma.

12. An *in vitro* method for detecting or diagnosing cancer in an animal or a human subject which comprises the steps of:

(i) detecting or measuring a histone isoform associated with a cell free nucleosome in a body fluid obtained from a subject; and

(ii) using the nucleosome associated histone isoform level detected to identify cancer in the subject.