WE CLAIM:

1. A DNA diagnostic kit which comprises an immortalized aqueous stable and ready-to-use DNA probe on cellulose acetate (M/S Whatman 541) membrane that performed DNA-DNA hybridization with DNA probes and Quantum dots or nanoparticles, Fluorescent dye &/or enhancers can also be used to enhance the signal intensity and detection limit.
2. The DNA diagnostic kit as claimed in claim 1, wherein the diagnostic kit consists of the composition of DNA probe made of oligonucleotide or polynucleotide sequence and Quantum dots or nanoparticles selected from the group such as ZnS - Mn+2 doped nanoparticles or ZnS-Cu+2 doped QDs or any other like gold nanoparticles which give auto-fluorescence.
3. The DNA diagnostic kit as claimed in claim 1, wherein the diagnostic kit comprise the fluorescent dye such as Poly-fluorine, Rhod-5N and further amplifies the signal &/or using enhancers like Silver or Silica coating containing Fluor chrome , Luminol etc.
4. The DNA diagnostic kit as claimed in claim 1, wherein the diagnostic kit has a long shelf life under ambient conditions.
5. The method for the detecting the sample using DNA diagnostic kit as claimed in claim 1, wherein the diagnostic kit comprises the steps of:
    a. Spotting DNA or intact microbial cells as dots or by colony hybridization method on the cellulose acetate membrane,
    b. Denaturing the double stranded DNA to single stranded form and the single stranded DNA then gets bound to the membrane rapidly and easily by a rapid and single step of exposure to alkali and steam.
    c. dispensing the hydrating the membrane by Pre-hybridization and also dispenses the need for baking at 80°C under vacuum for one hour or UV cross-linking (as is required for other membranes);
6. The method for the preparation of the DNA diagnostic kit as claimed in claim 1. wherein the DNA kit detects the sample by auto-fluorescence of the particle that can be viewed under UV lamp/torch or by naked eye preferably in dark, depending upon the chemical composition of the particles.

7. The method for the preparation of the DNA diagnostic kit as claimed in claim 1. wherein the method detects all microorganisms and genetic/ metabolic diseases such as but not limited to cancer in human, animal and plants.

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Registrar
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