

## Good gene patent list

| NO. | country        | publication ID | name of patent  | abstract   | IPC  |
|-----|----------------|----------------|---|--|--|
| 1   | JP             | 04977612       | HPV probe and DNA chip microarray utilizing the probe   | Disclosed is a DNA chip (or DNA microarray) on which probes complementarily binding to the nucleic acids of 44 types of HPV, which is the main cause of cervix cancer and the most common cause of sexually transmitted diseases, are spotted. A genotyping kit including same and a genotyping method using same. In accordance with the present disclosure, all the 44 types of HPV invading the genitalia can be detected and coinfection by more than one type of HPV can be diagnosed accurately. The sensitivity and specificity of HPV genotyping is close to 100% and a number of samples can be tested quickly. The present disclosure is very useful in predicting cervical cancer and precancerous lesions.   | C12N15/09 ,<br>C12Q1/68 ,<br>C12M1/00 ,<br>G01N21/78 |
| 2   | EP<br>(Europe) | 01802753       | Method for stably storing rna at room temperature for a long period of time using chitosan and products using the same method | If DNA of human, animal, plant or bacteria, or a bio-sample containing DNA such as blood is well mixed with a water-soluble chitosan, and stored as a liquid state or a solid state using a solid medium such as a paper, it is possible to store DNA stably at room temperature for a long time, and it is also useful for a gene assay henceforth. The DNA storage method is simple and economical, and a product prepared by applying the method such as a DNA card and a PCR kit can store, carry and collect multiple DNA samples, and it is also very useful for an automatic assay. In addition, the DNA ID card can play a role of DNA bank which stores personal DNAs, and it is helpful for personal identification and medical treatment by storing the personal genetic information as well. | C12N15/10<br>C12Q1/68                                |
| 3   | T3<br>(Spain)  | 2352849        | PROCEDURE TO STORE DNA USING QUITOSANO, AND PRODUCTS THAT USE THE PROCEDURES.   | Un procedimiento para almacenar ADN en forma de complejo de quitosano/ADN preparado mezclando una disolucion de ADN y una disolucion de quitosano hidrosoluble, en el que el ADN es ADN genómico de animales, plantas, hongos, bacterias y virus, y el quitosano hidrosoluble tiene un grado de desacetilacion de 60% o superior, y un peso molecular de 10 kDa a 500 kDa.   | C12N15/10<br>C12Q1/68                                |

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| 4 | T<br>(Spain) | 483803  | PROCEDURE FOR THE STORAGE OF DNA USING CHITOSAN AS WELL AS PRODUCTS USING THE PROCEDURES                               | <p>If DNA of human, animal, plant or bacteria, or a bio-sample containing DNA such as blood is well mixed with a water-soluble chitosan, and stored as a liquid state or a solid state using a solid medium such as a paper, it is possible to store DNA stably at room temperature for a long time, and it is also useful for a gene assay henceforth. The DNA storage method is simple and economical, and a product prepared by applying the method such as a DNA card and a PCR kit can store, carry and collect multiple DNA samples, and it is also very useful for an automatic assay. In addition, the DNA ID card can play a role of DNA bank which stores personal DNAs, and it is helpful for personal identification and medical treatment by storing the personal genetic information as well.</p> | C12N15/10<br>C12Q1/68 |
| 5 | US           | 7470534 | Mutated AQP, method for detecting cancer using the same, DNA chip having oligonucleotides of said mutated AQP sequence | <p>The present invention relates to mutation genes of the AQP(aquaporin), a method for detecting cancer using mutations and expressions of the AQP and a DNA chip possessing oligonucleotides of mutated AQP base sequence. In case of the present method for detecting cancer and DNA chip using the AQP's mutations and expressions, it is highly accurate, rapid and effective in cancer diagnosis.</p>  | C12M1/34<br>C07H21/02 |

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| 6 | WO<br>(World Intellectual Property) | 2009123373 | NEW SKIN SAMPLING KIT WHICH STORES NUCLEIC ACIDS IN STABLE STATUS, GENETIC TEST METHODS BY USING THE KIT AND THEIR PRACTICAL APPLICATION | <p>The present invention relates to a new skin gene card for genetic test, a method for acquiring DNA and RNA and performing various genetic tests using the same, and practical applications thereof. More specifically, the inventors of the present invention have developed a skin gene card capable of acquiring samples from human skin, hair or mucosa simply, safely and quickly and enabling stable long-term storage and transport of DNA and RNA included in the acquired sample at room temperature. Various genetic tests may be performed using the acquired DNA and RNA, including polymerase chain reaction (PCR), reverse transcription (RT)-PCR, real-time PCR, sequencing, hybridization, DNA chip analysis, single-nucleotide polymorphism (SNP) assay, gene mutation assay, promoter methylation assay, gene expression assay, etc. The genetic skin test result may be utilized for disease prognosis, nutrigenomic test, pharmacogenomic test, forensic test such as personal identification, diagnosis of genetic diseases, diagnosis of skin diseases, the like. In addition, through an objective evaluation of the skin or hair condition, a personalized cosmetic and skin care system may be established for practical application in beauty care, cosmetology, dermatology, and clinical practice.</p> | C12Q1/68 |
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| 7 | US | 20110033842 | Skin Sampling Kit Which Stores Nucleic Acids In Stable Status, Genetic Test Methods By Using The Kit And Their Practical Application | The present invention relates to a new skin gene card for genetic test, a method for acquiring DNA and RNA and performing various genetic tests using the same, and practical applications thereof. More specifically, the inventors of the present invention have developed a skin gene card capable of acquiring samples from human skin, hair or mucosa simply, safely and quickly and enabling stable long-term storage and transport of DNA and RNA included in the acquired sample at room temperature. Various genetic tests may performed using the acquired DNA and RNA, including polymerase chain reaction (PCR), reverse transcription (RT)-PCR, real-time PCR, sequencing, hybridization, DNA chip analysis, single-nucleotide polymorphism (SNP) assay, gene mutation assay, promoter methylation assay, gene expression assay, etc. The genetic skin test result may be utilized for disease prognosis, nutrigenomic test, pharmacogenomic test, forensic test such as | C12Q1/70<br>A61B10/00<br>C07H1/06<br>C12M1/00<br>C12P19/34<br>C12Q1/68 |
| 8 | JP | 23516061    | New skin gene card to reliably store nucleic acid and genetic analysis method using this (analysis procedures and its applications   | The present invention skin gene card of the present invention relates to a method of performing various gene analysis by separating the DNA and RNA from the new skin gene card and the future for gene analysis, and how to apply them (skins gene Card) is an application of DNA and RNA card which is a patent product of the present inventors, etc., the sample from the skin and hair mucosa, such as the human body simple and safe and fast...  | C12M1/26 ,<br>C12Q1/68 ,<br>C12M1/00                                   |
| 9 | US | 20130184164 | DNA Chip for Genotyping of Human Papilloma Virus, Kit Having Same, and Method for Genotyping   | Disclosed is a DNA chip (or DNA microarray) on which probes complementarily binding to the nucleic acids of 44 types of HPV, which is the main cause of cervical cancer and the most common cause of sexually transmitted diseases, are spotted. a genotyping kit including same and a genotyping method using same. In accordance with the present disclosure, all the 44 types of HPV invading the genitalia can be detected and coinfection by more than one type of HPV can be diagnosed accurately. The sensitivity and specificity of HPV genotyping is close to 100% and a number of samples can be tested quickly. The present disclosure is very useful in predicting cervical cancer and precancerous lesions.  | C12Q1/70   |

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| 10 | WO | 2010062001  | DNA CHIP, KIT FOR DETECTING OR GENOTYPING BACTERIA CAUSING SEXUALLY TRANSMITTED DISEASES, GENOTYPING ANTIBACTERIAL DRUG RESISTANCE AND DETECTING OR GENOTYPING METHOD USING THE SAME | Disclosed are a DNA chip and a kit capable of quickly and accurately detecting or genotyping the highly prevalent and important eleven microbes causing sexually transmitted diseases (STD) <i>Neisseria gonorrhoeae</i> , <i>Chlamydia trachomatis</i> , <i>Ureaplasma urealyticum</i> , <i>Mycoplasma genitalium</i> , <i>Mycoplasma hominis</i> , syphilis causing <i>treponema pallidum</i> , chancroid-causing <i>Haemophilus ducreyi</i> , genital herpes-causing herpes simplex virus 1 and 2, human papillomavirus (HPV) and <i>Trichomonas vaginalis</i> and three related organisms <i>Candida albicans</i> , <i>Gardnerella vaginalis</i> and coliform bacteria and analyzing antibiotic resistance against tetracycline and lactam antibiotics, and a method for detecting or genotyping using the same. According to the present invention, the presence, genotype and antibiotic resistance of the fourteen organisms can be analyzed quickly and accurately from a DNA sample. With excellent sensitivity, specificity, reproducibility and accuracy of the 14 STD-causing and related microorganisms may be automatically identified quickly and accurately from multiple samples, a selection of antibiotics may be aided. | C12Q1/68               |
| 11 | US | 20120004113 | DNA CHIP, KIT FOR DETECTING OR GENOTYPING BACTERIA CAUSING SEXUALLY TRANSMITTED DISEASES, GENOTYPING ANTIBACTERIAL DRUG RESISTANCE AND DETECTING OR GENOTYPING METHOD USING THE SAME | Disclosed are a DNA chip and a kit capable of quickly and accurately detecting or genotyping the highly prevalent and important eleven microbes causing sexually transmitted diseases (STD) <i>Neisseria gonorrhoeae</i> , <i>Chlamydia trachomatis</i> , <i>Ureaplasma urealyticum</i> , <i>Mycoplasma genitalium</i> , <i>Mycoplasma hominis</i> , syphilis causing <i>treponema pallidum</i> , chancroid-causing <i>Haemophilus ducreyi</i> , genital herpes-causing herpes simplex virus 1 and 2, human papillomavirus (HPV) and <i>Trichomonas vaginalis</i> and three related organisms <i>Candida albicans</i> , <i>Gardnerella vaginalis</i> and coliform bacteria and analyzing antibiotic resistance against tetracycline and lactam antibiotics, and a method for detecting or genotyping using the same. According to the present invention, the presence, genotype and antibiotic resistance of the fourteen organisms can be analyzed quickly and accurately from a DNA sample. With excellent sensitivity, specificity, reproducibility and accuracy of the 14 STD-causing and related microorganisms may be automatically identified quickly and accurately from multiple samples, a selection of antibiotics may be aided. | C40B20/00<br>C40B40/06 |

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| 12 | EP | 01802756   | PROBE OF HUMAN PAPILLOMAVIRUS AND DNA CHIP COMPRISING THE SAME   | Oligonucleotide probes for analyzing 40 types of HPV were synthesized, and DNA chips were produced by using the oligonucleotide probes. The synthesis of the oligonucleotide probes is based on clones of LI and E6/E7 genes of 35 types of HPV obtained from cervical cell specimens from 4,898 Korean adult women and tissue specimens from 68 cervical cancer cases in addition to information based on American and European cases. The DNA chips can analyze the 40 types of HPV found in cervical, diagnose complex infection by at least one type of HPV, and have excellent diagnostic sensitivity and specificity on HPV genetic type up to 100% and reproducibility. Also, the DNA chips are superior to conventional analysis method, and very economical, since they can analyze numerous specimens in shortest time. Accordingly, the DNA chips are useful for predicting cervical cancer and precancerous lesion.   | C12N15/11<br>C12N15/11 |
| 13 | EP | 02283152   | NEW SKIN SAMPLING KIT WHICH STORES NUCLEIC ACIDS IN STABLE STATUS, GENETIC TEST METHODS BY USING THE KIT AND THEIR PRACTICAL APPLICATION | The present invention relates to a new skin gene card for genetic test, a method for acquiring DNA and RNA and performing various genetic tests using the same, and practical applications thereof. More specifically, the inventors of the present invention have developed a skin gene card capable of acquiring samples from human skin, hair or mucosa simply, safely and quickly and enabling stable long-term storage and transport of DNA and RNA included in the acquired sample at room temperature. Various genetic tests may be performed using the acquired DNA and RNA, including polymerase chain reaction (PCR), reverse transcription (RT)-PCR, real-time PCR, sequencing, hybridization, DNA chip analysis, single-nucleotide polymorphism (SNP) assay, gene mutation assay, promoter methylation assay, gene expression assay, etc. The genetic skin test result may be utilized for disease prognosis, nutrigenomic test, pharmacogenomic test, forensic test such as personal identification, diagnosis of genetic diseases, diagnosis of skin diseases, the like. In addition, through an objective evaluation of the skin or hair condition, a personalized cosmetic and skin care system may be established for practical application in beauty care, cosmetology, dermatology, and clinical practice. | C12Q1/68               |
| 14 | WO | 2002024627 | CATIONIC LIPIDS AND USE THEREOF  | The present invention relates to cationic lipids, methods for preparing some and methods for effectively transporting anionic molecular substances into cell by using said cationic lipids. The present lipids are compatible to the gene therapy due to their stability and highly transporting effects.   | C07C211/63             |

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| 15 | WO | 2002020787 | MUTATED AQP, METHOD FOR DETECTING CANCER USING THE SAME, DNA CHIP HAVING OLIGONUCLEOTIDES OF SAID MUTATED AQP SEQUENCE | The present invention relates to mutation genes of the AQP(aquaporin), a method for detecting cancer using mutations and expressions of the AQP and a DNA chip possessing oligonucleotides of mutated AQP base sequence. In case of the present method for detecting cancer and DNA chip using the AQP's mutations and expressions, it is highly accurate, rapid and effective in cancer diagnosis.  | C12N15/12 |
| 16 | WO | 2006028323 | METHOD FOR STORING DNA BY USING CHITOSAN, AND PRODUCTS USING THE METHODS   | If DNA of human, animal, plant or bacteria, or a bio-sample containing DNA such as blood is well mixed with a water-soluble chitosan, and stored as a liquid state or solid state using a solid medium such as a paper, it is possible to store DNA stably at room temperature for a long time, and it is also useful for a gene assay henceforth. The DNA storage method is simple and economical, and a product prepared by applying the method such as a DNA card and a PCR kit can store, carry and collect multiple DNA samples, and it is also very useful for an automatic assay. In addition, the DNA ID card can play a role of DNA bank which stores personal DNAs, and it is helpful for personal identification and medical treatment by storing the personal genetic information as well. | C12N15/00 |
| 17 | WO | 2006038752 | PROBE OF BACTERIA CAUSING SEXUALLY TRANSMITTED DISEASES, DNA CHIP AND GENOTYPING KIT                                   | A DNA chip and a genotyping kit for diagnosis with quickness and accuracy of infection with the four most frequent outbreaks among sexually transmitted disease (STD) pathogens such as Neisseria gonorrhoeae, Chlamydiae trachomatis, Ureaplasma urealyticum, Mycoplasma genitalium, and an oligonucleotide probe used therein are provided. The DNA chip and the genotyping kit is excellent in sensitivity, specificity and reproducibility in diagnosis of STD, and they are effective in automated analysis with quickness of four types of bacteria in various samples.  | C12N15/11 |

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| 18 | WO | 2006038753 | PROBE OF HUMAN PAPILLOMAVIRUS AND DNA CHIP COMPRISING THE SAME | <p>Oligonucleotide probes for analyzing 40 types of HPV were synthesized, and DNA chips were produced by using the oligonucleotide probes. The synthesis of the oligonucleotide probes is based on clones of LI and E6/E7 genes of 35 types of HPV obtained from cervical cell specimens from 4,898 Korean adult women and tissue specimens from 68 cervical cancer cases in addition to information based on American and European cases. The DNA chips can analyze the 40 types of HPV found in cervical, diagnose complex infection by at least one type of HPV, and have excellent diagnostic sensitivity and specificity on HPV genetic type up to 100% and reproducibility. Also, the DAN chips are superior to conventional analysis method, and very economical, since they can analyze numerous specimens in shortest time. Accordingly, the DNA chips are useful for predicting cervical cancer and precancerous lesion.</p>   |                      |
| 19 | WO | 2007049843 | BIO-CHIP SCANNER   | <p>There is provided a bio-chip scanner. A light source unit irradiates light of a specific wavelength onto a detecting position. A transfer unit transfers the bio-chip so that the light is irradiated onto a plurality of reference points separated by a predetermined distance from each other on the bio-chip. A detection unit is located above the detecting position and detects the light irradiated onto the reference points to output a plurality of images corresponding to the reference points. A focusing unit determines a focal length by averaging light intensities obtained from the images corresponding to the reference points input from the detection unit, and adjusts a focus corresponding to the bio-chip by transferring the detection unit upwardly or downwardly in accordance with the focal length. Accordingly, in the bio-chip scanner of the present invention, an automatic focus adjustment can be carried out to samples mounted on the bio-chip which has various surface tilt.</p> | C12Q1/68<br>C12Q1/68 |
| 20 | WO | 2007049844 | MULTI-CHANNEL BIO-CHIP SCANNER                                 | <p>There is provided a multi-channel bio-chip scanner using two or more excitation wavelengths. The bio-chip scanner includes: a glass holder unit mounted with a bio-chip in which a target DNA pre-marked by a fluorescent material is hybridized with a probe DNA; a light source unit irradiating a laser beam onto the bio-chip; a transfer unit transferring the bio-chip from the glass holder unit; and a detection unit detecting and analyzing fluorescent light expressed by the bio-chip with irradiation of the laser beam, wherein the light source unit generates two or more laser beams having different wavelengths.</p>   | C12Q1/68<br>C12Q1/68 |

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| 21 | WO | 2011158987 | DNA CHIP FOR GENOTYPING OF HUMAN PAPILLOMA VIRUS, KIT HAVING SAME, AND METHOD FOR GENOTYPING                                 | <p>The present invention relates to a DNA chip, or a DNA microarray, having a conglomeration of probes thereon, wherein the probes complementarily bind w 44 types of HPV nucleic acids, which are the main cause of cervical cancer and th most common cause of sexually transmitted diseases, a genotyping kit having same, and a method for genotyping using same. The present invention enables recognition of all 44 types of HPV that invade the genitals, accurate diagnosis of multiple infections from more than one HPV types, high sensitivity and specificity for the HPV genotype diagnosis at near 100%, and quick testing of a plurality of specimens, and is very useful in prognosis of cervical cancer and precancerous lesions.</p>  | C12Q1/68<br>C12N15/37                           |
| 22 | WO | 2011105654 | Y-PROBE AND VARIATION THEREOF, AND DNA MICROARRAY, KIT, AND GENE ANALYSIS METHOD USING THE Y-PROBE AND THE VARIATION THEREOF | <p>The present invention relates to a Y-type nucleotide probe having two probe portions on a single body such that it can be widely used for genotype testing an analysis with improved sensitivity, specificity, and accuracy, as well as to a DNA microarray, kit, and gene analysis method using the y-probe. The Y-probe of the invention is configured with five portions, comprising: a left probe portion, a left stem portion, a linker, a right stem portion, and a right probe portion. The DNA microarray of the present invention may have improved testing accuracy as it ca perform a simultaneously overlapping test on the same gene or a simultaneous test on two different target genes. In particular, by simultaneously testing a targ gene and a control gene in one spot, analysis errors can be reduced, quantitative analysis is made possible, and standardization is facilitated. The Y-probe of the present invention can be used for genotype analysis and gene expression analysi as well as for mutation and SNP analysis, and can thus be broadly used for the diagnosis and prognosis of diseases and for genetic diagnosis for determining a course of treatment, etc.</p> | C12N15/11<br>C07H21/00<br>C12Q1/68<br>G01N33/52 |

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| 23 | JP | 20515423 | STD diagnosing DNA microarrays, Primers, and Probes   | 淋菌, クラミジア・トラコマチス, ウレアプラズマ・ウレアリティカム, マイコプラズマ・ジェニタリウムのような性交渉感染症(STD)病原菌の内, 最も頻繁に発症する4種との感染を素早く正確に診断するためのDNAチップ及び遺伝子型決定キット, 及びそれに使用するオリゴヌクレオチドプローブを提供する前記DNAチップ及び遺伝子型決定キットは, STDの診断...  | C12Q1/68 ,<br>C12N15/09 ,<br>C12M1/00 ,<br>G01N21/78  |
| 24 | JP | 20512090 | DNA store method utilizing chitosan and its applications  | もし, ヒト, 動物, 植物若しくはバクテリア, または血液のようなDNAを含むバイオサンプルが, 水溶性キトサンとよく混和され, 液体状態, または紙のような固形媒体を用いて固体状態で保存されたならば, 室温で長期間安定してDNAを保存することが可能であり, この後の遺伝子アッセイにも有益となるDNA保存方法は, 簡易で経済的であり, DNAカード及びPCRキッ...   | C12N15/09 ,<br>C12Q1/68 ,<br>C12M1/00   |
| 25 | JP | 24509686 | { DNChip, Kit for Detecting or Genotyping Bacteria Causing Sexually Transmitted Diseases, Genotyping antibacterial drug resistanceand Detecting or Genotyping Method Using The Same } | roblem the present invention the cause of 14 kinds of sexually transmitted diseases (STD) and the presence or absence of infection of the associated bacterium and further the genotype of these bacteria (genotype) and new DNA chip kits and analysis that can quickly and accurately analyze the genotype of tetracycline and lactam-based antibiotic resistance Method Solutions specifically N. Gonorrhoea and C. Trachomatis   | C12M1/00 ,<br>C12N15/09 ,<br>C12Q1/68 ,<br>C12Q1/04 ,<br>G01N37/00 ,<br>G01N33/571 ,<br>G01N21/78 |
| 26 | JP | 25520195 | Y-shaped probe and its deformed, lined DNA microarray, kit and gene analysis procedures utilizing this  | The present invention is one of the main body that can be widely used for diagnosis by improving the sensitivity specificity and accuracy during the examination and analysis of the gene type of the present invention on the DNA microarray kit and gene analysis method using a Y-shaped nucleotide probe and this having two probe sites in the The structure of the Y-shaped probe is left side probe part left-side Executive Linker (linker) right side executive minute... | C12N15/09 ,<br>C12Q1/68 ,<br>G01N37/00  |

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| 27 | CN       | 103210091 | DNA chip for genotyping of human papilloma virus, kit having same, and method for genotyping   |  | C12Q1/68<br>C12N15/37                           |
| 28 | CN<br>US |           | Y-probe and variation thereof, and DNA microarray, kit, and gene analysis method using the Y-probe and the variation thereof             | The present disclosure relates to a Y-shaped nucleotide probe having two probe parts in one body, which provides improved sensitivity, specificity and accuracy in genotype and genetic analysis and thus is widely applicable to diagnosis and a variant thereof (d- or b-shaped probe), and a DNA microarray, a kit and a genetic analysis method using the same. The Y-shaped probe comprises a left-side probe part, a left-side stem part, a linker part, a right-side stem part and a right-side probe part. The DNA microarray of the present disclosure can improve accuracy of test by testing the same gene  | C12N15/11<br>C07H21/00<br>C12Q1/68<br>G01N33/52 |
| 29 | CN       | 101990578 | New skin sampling kit which stores nucleic acids in stable status, genetic test methods by using the kit and their practical application |  | C12Q1/68  |
| 30 | CN       | 101048501 | Method for storing DNA by using chitosan, and products using the methods   | If DNA of human, animal, plant or bacteria, or a bio-sample containing DNA such as blood is well mixed with a water-soluble chitosan, and stored as a liquid state or solid state using a solid medium such as a paper, it is possible to store DNA stably at room temperature for a long time, and it is also useful for a gene assay henceforth. The DNA storage method is simple and economical, and a product prepared by applying the method such as a DNA card and a PCR kit can store, carry and collect multiple DNA samples, and it is also very useful for an automatic assay. In addition, the DNA ID card can play a role of DNA bank which stores personal DNAs, and it is helpful for personal identification and medical treatment by storing the personal genetic information as well. | C12N15/00                                       |

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| 31 | CN | 101035896 | Probe of human papillomavirus and DNA chip comprising the same | <p>Oligonucleotide probes for analyzing 40 types of HPV were synthesized, and DNA chips were produced by using the oligonucleotide probes. The synthesis of the oligonucleotide probes is based on clones of L1 and E6/E7 genes of 35 types of HPV obtained from cervical cell specimens from 4,898 Korean adult women and tissue specimens from 68 cervical cancer cases in addition to information based on American and European cases. The DNA chips can analyze the 40 types of HPV found in cervical, diagnose complex infection by at least one type of HPV, and have excellent diagnostic sensitivity and specificity on HPV genetic type up to 100% and reproducibility. Also, the DNA chips are superior to conventional analysis method, and very economical, since they can analyze numerous specimens in shortest time. Accordingly, the DNA chips are useful for predicting cervical cancer and precancerous lesion.</p> | C12N15/11 |
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| 32 | US | 20070254294 | Method for Storing Dna by Using Chitosan, and Products Using the Methods                               | <p>If DNA of human, animal, plant or bacteria, or a bio-sample containing DNA such as blood is well mixed with a water-soluble chitosan, and stored as a liquid state or solid state using a solid medium such as a paper, it is possible to store DNA stably at room temperature for a long time, and it is also useful for a gene assay henceforth. The DNA storage method is simple and economical, and a product prepared by applying the method such as a DNA card and a PCR kit can store, carry and collect multiple DNA samples, and it is also very useful for an automatic assay. In addition, the DNA ID card can play a role of DNA bank which stores personal DNAs, and it is helpful for personal identification and medical treatment by storing the personal genetic information as well.</p> | C12Q1/68<br>C07H21/04<br>C12N9/12 |
| 33 | AI | 200192389   | Cationic lipids and use thereof  | .   | C07C211/63                        |
| 34 | US | 20130237427 | Y-SHAPED PROBE AND VARIANT THEREOF, AND DNA MICROARRAY, KIT AND GENETIC ANALYSIS METHOD USING THE SAME | <p>The present disclosure relates to a Y-shaped nucleotide probe having two probe parts in one body, which provides improved sensitivity, specificity and accuracy in genotype and genetic analysis and thus is widely applicable to diagnosis and a variant thereof (d- or b-shaped probe), and a DNA microarray, a kit and a genetic analysis method using the same. The Y-shaped probe comprises a left-side probe part, a left-side stem part, a linker part, a right-side stem part and a right-side probe part. The DNA microarray of the present disclosure can improve accuracy of test by testing the same gene si...</p>  | C12Q1/68                          |