

Claims

1. A method of assaying susceptibility and/or confirming diagnosis of breast
fibroadenomas development in a human subject comprising:
performing a nucleic acid-based assay to analyze an isolated polynucleotide
encoding at least exon 2 of *MED12* gene from a sample acquired from the human
subject; and regarding the human subject with greater susceptibility and/or confirming
diagnosis of breast fibroadenomas development by detecting a mutation in
the isolated
polynucleotide, wherein the mutation is a splice site mutation located at position -8 of
exon 2 of the *MED12* gene, a missense mutation located at codon 44 of cDNA of
the *MED12* gene or a missense mutation located at codon 36 of cDNA of the
MED12 gene, wherein cDNA sequence of the *MED12* gene is set forth in SEQ ID
No. 15.
2. The method of claim 1, wherein the missense mutation is located at position 107 of
codon 36 cDNA of the *MED12* gene.
3. The method of claim 1, wherein the missense mutation is located at position
130 and/or 131 of codon 44 cDNA of the *MED12* gene
4. The method of claim 1, wherein the missense mutation results in p.G44A,
p.G44C, p.G44D, p.G44R, p.G44S, or p.G44V in a polypeptide translated from
the *MED12* gene.
5. The method of claim 1, wherein the performing a nucleic acid-based assay comprises
sequencing the polynucleotide.
6. The method of claim 1, wherein the sample comprises stromal tissues.