

Research Use Only

Qexp-MDx ADRB2/ADRB3/UCP1 Genotyping Kit

Woman nannies photo created by gpointstudio from Freepik



Obesity has emerged as one of the most serious public health concerns in the twenty-first century. Someone keeps their shape well despite they guzzle down drink or food. Some people go on a diet and exercise but can't get rid of the weight they gain. Did you know that obesity is also related to genes in addition to acquired effects! Currently, common obesity genes include *ADRB2*, *ADRB3*, *UCP1*, *PPARγ*, *GNB3*, *Sema3*, and so on. *Qexp-MDx* Obesity Genotyping Kit is based on *ADRB2*, *ADRB3*, and *UCP1* to analyze the risk of obesity.

Beta-2 adrenergic receptor, ADRB2

ADRB2 is a cell membrane-spanning beta-adrenergic receptor. It will couple with catecholamines to activate a series of downstream reactions that promote the decomposition of fat and carbohydrates. ADRB2 has a Guanine (G) mutation from Cytosine (C) at position 79 leading to a decreased efficiency of fat and carbohydrate metabolism and an increased risk of systemic obesity.

Beta-3 adrenergic receptor, ADRB3

The function of ADRB3 is co-related to the ADRB2. The difference is that ADRB3 is involved in intercellular signaling and is responsible for lipolysis and thermogenesis. *ADRB3* has a Cytosine (C) mutation from Thymine (T) at position 190. It will lead to easy accumulation of fat and increase the risk of upper-body fat.

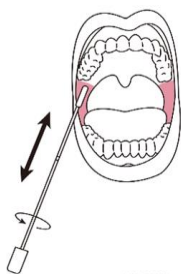
Thermogenin, UCP1

UCP1 is a mitochondrial carrier protein found in brown adipose tissue (BAT). UCP1 plays an important role in energy balance by consuming energy from food metabolism to generate heat. *UCP1* has a Guanine (G) mutation from Adenine (A) at position 190. It leads to poorer thermogenesis effect and accumulate fat in the thighs and buttocks, resulting in lower-body obesity.

3 STEPs to know your genotype

Sample Collection

Oral Swab



Direct PCR

Qamp^{mini} Thermal Cycler

- ✓ Pre-program chip
- ✓ One-button start!
- ✓ Save time!
- ✓ Easy to use!



Results Analysis

Qsep Series Fragment Analyzer



Q-Analyzer

- 1 ✓ User-friendly
- 2 ✓ 3 steps complete
- 3 ✓ Automated reporting

Genotyping Kit "Features"

Extraction Free

Direct PCR

No need for nucleotide extraction

Start PCR after simple lysis

Save time and make it easier to operate

Genetic Testing as life



Multiple Targets

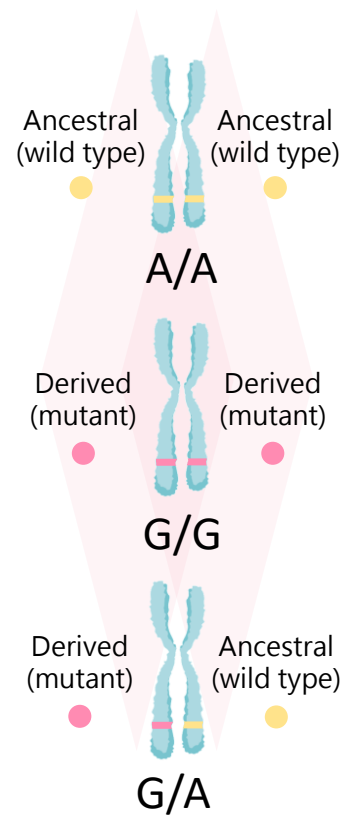
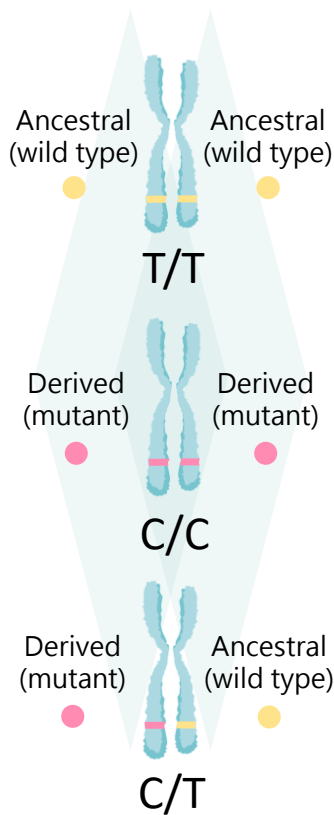
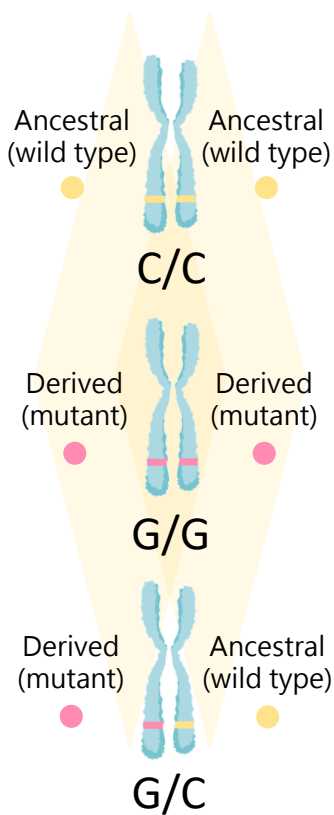
Multiplex PCR for each gene

Genotype Identification

ADRB2

ADRB3

UCP1



Order Information

Catalog No.	Product	Unit
C903202-24	<i>Qexp</i> -MDx ADRB2/ADRB3/UCP1 Genotyping Kit	24 rxn
C903202-48		48 rxn

