

NUDT15 variants HRM PCR BM-035

RUO
Research Use Only

The NUDT15 HRM-PCR BM-035 kit is a qualitative assay designed for the discrimination of the allelic variants 50delGAGTCG, 55_56insGAGTCG in exon 1 (rs746071566) and 415C>T in exon 3 (rs116855232) in the NUDT15 gene. These variants have emerged as major determinants of mercaptopurine intolerance, increasing its side effects as neutropenia.

- High resolution melting PCR technology
- Results in less than 2,5 hours
- Analysis of rs746071566 and rs116855232 in NUDT15 sequence
- Requires only 2 wells
- Easy results interpretation with melting temperature analysis
- Sensitivity 100%
  Specificity 100%

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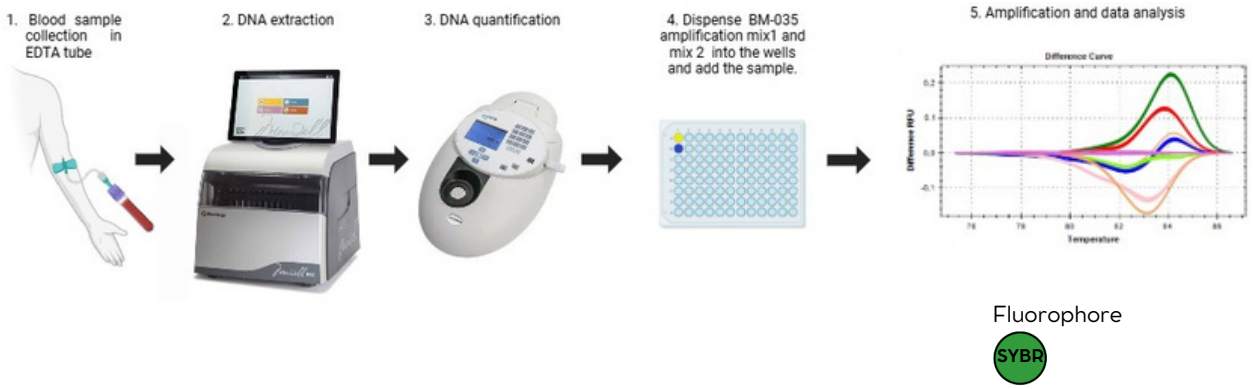
Quick protocol



Fluorophore

SYBR

DNA extraction compatible systems

- Promega – Maxwell MDx Instrument
- Promega – Maxwell RSC Instrument



Amplification compatible systems

- BIO-RAD - CFX96RealTimePCRDetectionSystem



Included in the kit

x 25 reactions



Master Mix 1

Master Mix 2

Positive control Exon1 55_56insGAGTCG

Positive control Exon3 415C>T

Reference:

1. YuCH, Chang YH, Wang DS, Jou ST, Lin CY, Lin KH, Lu MY, Wu KH, Cheng CN, Chang HH, Chou SW, Su MY, Ni YL, Xu PY, Lin DT, Lin SW, Chen HY, Yang YL. Allele-specific polymerase chain reaction candetermine the diplotype of NUDT15 variants in patients with childhood acute lymphoblastic Leukemia. Sci Rep. 2023 Jan 10;13(1):490. doi: 10.1038/s41598-023-27720-2. PMID: 36627439; PMCID: PMC9832159.

2. Xu Y, Qiao YQ, Li HY, Zhou M, Cai CW, Shen J, Ran ZH. NUDT15 genotyping during azathioprine treatment in patients with inflammatory bowel disease: implications for a dose-optimization strategy. Gastroenterol Rep (Oxf). 2020 Jun 26;8(6):437-444. doi: 10.1093/gastro/goaa021. PMID: 33442476; PMCID: PMC7793196.

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