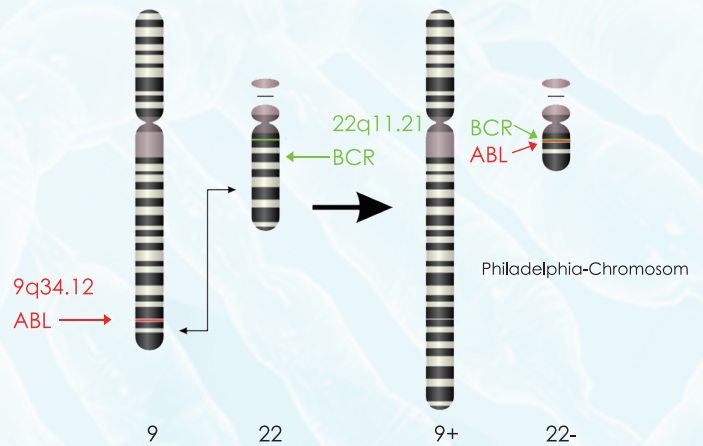


# Human BCR-ABL Gene T315I Mutation Detection Kit (Real-Time PCR assay)

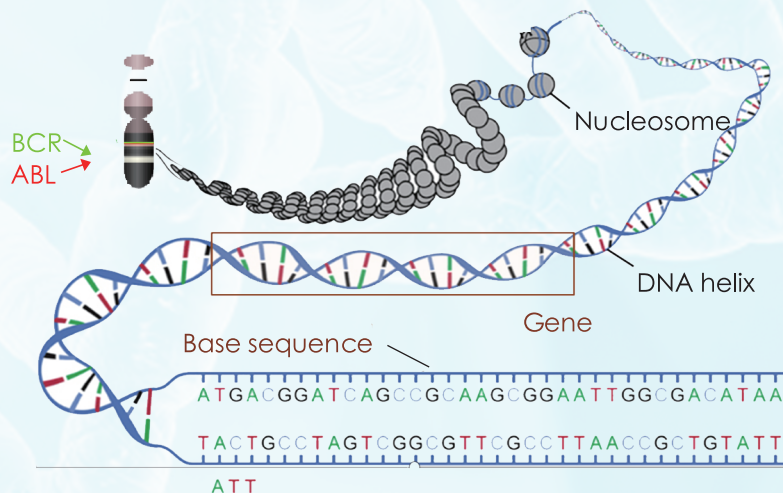
## GENE MUTATION AND CML

Chronic myeloid leukemia (CML) accounts for 15% ~ 20% of all leukemia. More than 95% of CML patients have characteristic BCR-ABL fusion genes. Imatinib (IM) is a first-line drug for the treatment of CML. With the progress of the disease course, almost all patients with CML in acute phase and 15% ~ 20% of CML relapsed after IM treatment developed resistance to IM, and the occurrence of resistance was closely related to BCR-ABL gene mutation. Among them, almost all patients with T315I point mutation were resistant to existing targeted drugs. The guideline recommends that frequent and long-term interruption of TKI treatment and poor medication compliance of patients may lead to adverse clinical results. Patients with poor first-line TKI tolerance should replace TKI in time. Patients with T315I mutation of BCR-ABL gene are resistant to Dasatinib and Nilotinib.

BCR-ABL gene fusion: The translocation of chromosomes 9 and 22 leads to the fusion of ABL and BCR genes, and the tyrosine kinase of the BCR-ABL fusion gene releases cell proliferation signals indefinitely to promote tumor formation.



### The necessity of detecting T315I mutation in BCR-ABL fusion locus



T315I mutation is caused by the substitution of threonine (THR) at position 315 of exon 6 of ABL1 gene by isoleucine (Ile), and the base is changed from ACT to ATT. After mutation, Ile315 cannot form hydrogen bond with IM, and the additional hydrocarbon bond on the substituted Ile side chain will produce spatial interference, which is not conducive to IM binding, resulting in drug resistance. Therefore, the detection result of T315I mutation of BCR-ABL gene is an important index to guide the medication of CML patients.



## PRODUCT INFORMATION

Product Name	Technology	Pack Size	Instruments Validated	Sample Type
Human BCR-ABL Gene T315I Mutation Detection Kit	Real-time PCR assay	25 Tests / Kit	Stratagene Mx3000P™ ABI7500 etc.	Peripheral blood Bone marrow



## DETECTION SIGNIFICANCE

»» It is recommended to detect T315 mutation of BCR-ABL gene before changing TKI drugs for Leukemia patients with Imatinib resistant CML, so as to provide reference for the medication of CML patients.



## FEATURES & ADVANTAGES

**Accuracy and Reliability:** Use pre-load PCR tube to effectively avoid cross-contamination.

**High Sensitivity:** LOD 1%.

**Ease of Use:** One step detection in 90 mins.

**Great versatility:** Validated on the most common qPCR machines with stable results.

## DETECTION PROCESS



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