

TRUPCR® BCR-ABL1 Kit (Major)

NEED

Approximately 95% of cases of Chronic Myeloid Leukaemia (CML) and about 35% of Acute Lymphoblastic Leukaemia (ALL) are associated with the presence of a t(9;22) (q34;q11) chromosomal translocation (Philadelphia chromosome, Ph). This results in creation of an oncogenic fusion gene between ABL proto-oncogene and BCR on chromosomes 9 and 22, respectively. The two most common fusion variants are called b2a2 and b3a2, which encode for a constitutively active chimeric tyrosine kinase of 210kDa (P210).

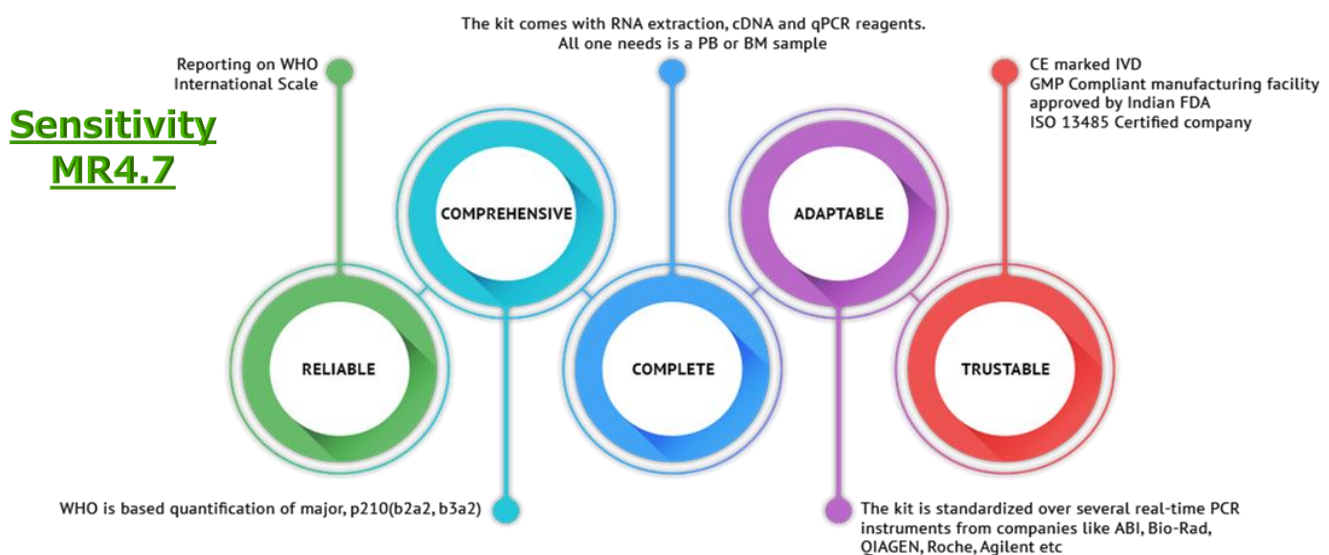
Tyrosine kinase inhibitors, such as STI-571 (imatinib; IM) have been shown to greatly inhibit the growth of tumor cells and reduce the patient's risk of reaching "blast crisis", the final phase of CML associated with decreased response and short survival. Complete cytogenetic response is achieved quite rapidly in CML patients treated with IM, thus a sensitive method to detect & quantify the fusion gene transcripts is required to accurately assess the response during therapy.

SOLUTION BY TRUPCR®

TRUPCR® BCR-ABL1 Kit is a Real-Time amplification test for the detection of BCR-ABL1 e13a2 and e14a2 fusion transcripts in bone marrow or peripheral blood samples. The kit comes in two variants, both for qualitative and quantitative detection of the P210 transcript of BCR-ABL1. It has two-step protocol in which total RNA is reverse-transcribed, and the generated cDNA is amplified by PCR using a pair of specific primers and a specific internal double-dye probe of BCR-ABL1.

The TRUPCR® BCR-ABL Kit takes chronic myeloid Leukaemia (CML) monitoring to a new level of sensitivity (MR4.7) to detect deep molecular response (DMR). A high positive control RNA is also included to monitor the reverse transcription and amplification steps of ABL1 and BCR-ABL during transcript quantification. The kit includes reagents for reverse transcription-PCR and real-time PCR.

KEY FEATURES



PRODUCT HIGHLIGHTS:

- Sample Type – EDTA Blood / Bone Marrow
- Limit of Detection
 - TRUPCR® BCR-ABL1 Quantitative Kit (Major) – Sensitivity of MR 4.7 Based on Rigorous Testing Criteria
 - TRUPCR® BCR-ABL1 Qualitative Kit (Major) – Equal to 10 copies of Major BCR-ABL1 transcript
- Measuring standards are calibrated to European reference material
- Compatible Instruments – Applied Biosystems™ 7500 series / StepOne series / QuantStudio® series, Rotor-Gene Q, Bio-Rad CFX96, CFX384, AriaMx Real-Time PCR, Roche - LightCycler® 480 – II, Line gene K Real-Time PCR

ORDERING INFORMATION

Cat. No.	Description	Size
3B1265	TRUPCR [®] BCR-ABL1 Quantitative Kit – Major (WHO IS)	24 Reactions
3B1251	TRUPCR [®] BCR-ABL1 Quantitative Kit – Major (WHO IS)	48 Reactions
3B1252	TRUPCR [®] BCR-ABL1 Quantitative Kit – Major (WHO IS)	96 Reactions
3B1201	TRUPCR [®] BCR-ABL1 Qualitative Kit – Major	48 Reactions
3B1202	TRUPCR [®] BCR-ABL1 Qualitative Kit – Major	96 Reactions

REFERENCES

1. Neetu Singh et al, 2018, Differential genomics and transcriptomics between tyrosine kinase inhibitor-sensitive and -resistant BCR-ABL-dependent chronic myeloid leukaemia. *Oncotarget*, 2018, Vol. 9, (No. 54), pp: 30385-30418 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6084383/>)
2. B.Das et al, 2018, H007. Evaluation of Performance of Two Commercially Available BCR-ABL Real-time PCR Assays for Deep Molecular Response in International Scale. AMP Abstracts, Pg no 917, *The Journal of Molecular Diagnostics* (https://amp18.amp.org/AMP/assets/File/JMDPublishedAbstracts_November2018.pdf?pass=42)

