

TRUPCR[®] BCR-ABL1 Kit

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).

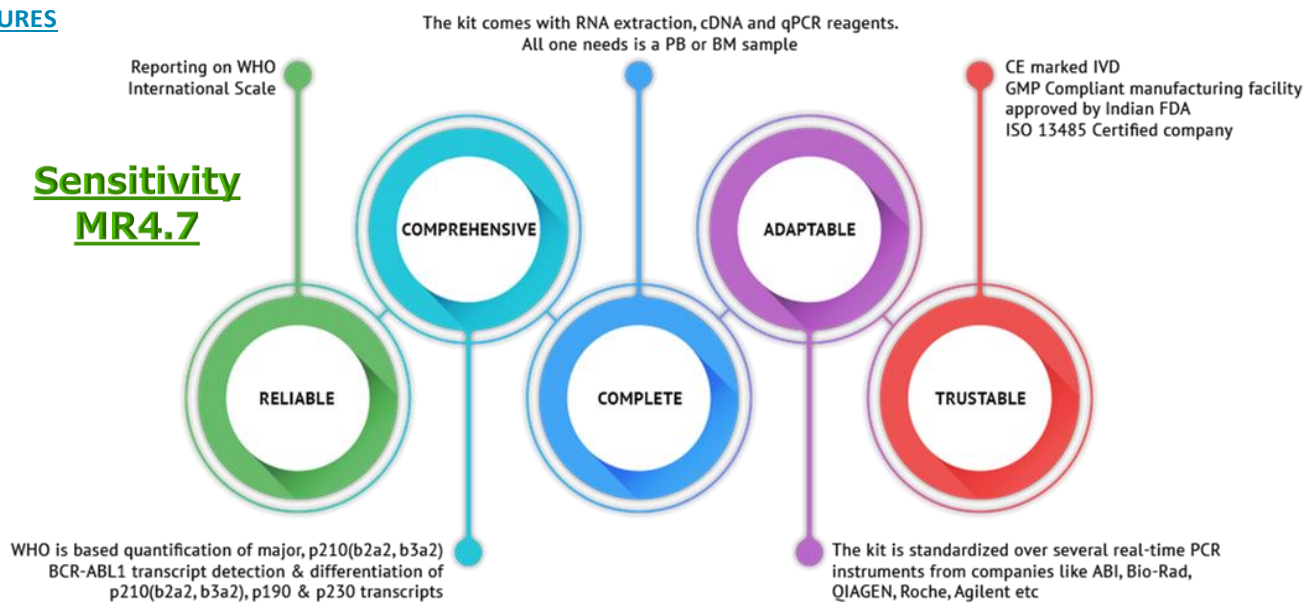
Tyrosine kinase inhibitors, such as STI-571 (imatinib; IM) have been shown to greatly inhibit the growth of tumor cells and reduce the patient's risk of reaching "blast crisis", the final phase of CML associated with decreased response and short survival. Complete cytogenetic response is achieved quite 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, differentiation & quantification of all three breakpoint cluster regions i.e. major/P210 (M-bcr), minor/P190 (m-bcr) and micro/P230 (mu-bcr) in bone marrow or peripheral blood samples. The assay has separate tubes for all the transcripts making it one of the most unique and comprehensive solution currently available.

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). It is a two-step protocol in which total RNA from patient's peripheral blood or bone marrow is isolated, the RT enzyme reverse transcribes total RNA and yields single-stranded cDNA. 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 – Sensitivity of MR 4.7 Based on Rigorous Testing Criteria
- 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
3B1267	TRUPCR® BCR-ABL1 Quantitative Kit – Major (WHO IS), Minor, Micro	48 Reactions
3B1268	TRUPCR® BCR-ABL1 Quantitative Kit – Major (WHO IS), Minor, Micro	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)

