

TRUPCR® PML-RARA Kit

NEED

The PML-RARA fusion gene is the most critical event involved in the pathogenesis of Acute Promyelocytic Leukemia (APL). The fusion results from a cytogenetic translocation t(15;17) leading to the rearrangement of PML and RARA genes. APL is a biologically and clinically distinct subtype of Acute Myeloid Leukemia (AML) with unique molecular pathogenesis, clinical manifestations and treatment. This fusion gene has been demonstrated to be responsible for cellular transformation, and confers a particular sensitivity to treatment with differentiating agents such as All-Trans Retinoic Acid (ATRA) plus chemotherapy or ATRA plus Arsenic-trioxide (ATO).

The formation of the three PML-RARA transcript subtypes depends on the location of breakpoints within the PML gene (intron 6, exon 6, and intron 3) and within the RARA gene (intron 2); these subtypes referred to as long (L or bcr1), variant (V or bcr2), and short (S or bcr3) account for 55%, 5%, and 40% of the cases respectively. The fusion isoforms are associated with distinct disease prognosis and drug response and thus detection, differentiation and monitoring is crucial in management of APL.

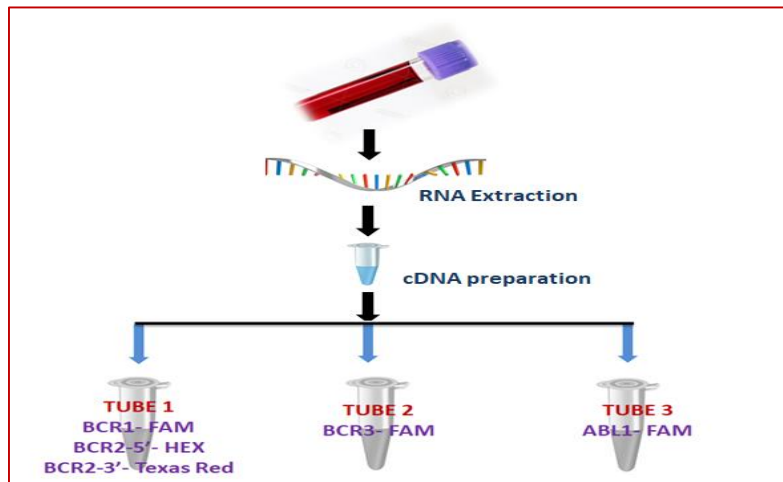
SOLUTION BY TRUPCR®

TRUPCR® PML-RARA Kit is a real-time amplification test for qualitative and quantitative detection of PML-RARA BCR1, BCR2 & BCR3 fusion transcripts in bone marrow or peripheral blood samples. The kit comes in two variants, both for qualitative and quantitative detection of all three PML-RARA transcripts. It has a 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 PML-RARA and ABL1.

This assay, detects and differentiates long (BCR1), variant (BCR2) and short (BCR3) transcript. This kit also differentiates between 5' break point and 3' break point of BCR 2 (variant) translocation. An additional amplification for the ABL1 gene is performed as a control for sample RNA quality and as a reference for relative quantification.

This is the only kit available in market which can differentiate between 5' break point and 3' break point of BCR2 (variant) translocation.

WORKFLOW



PRODUCT HIGHLIGHTS:

- Sample Type – EDTA Blood / Bone Marrow
- Limit of Detection
 - TRUPCR® PML-RARA Quantitative Kit – 4.62 copies of BCR1 / BCR2 and 3.25 copies for BCR3 transcript
 - TRUPCR® PML-RARA Qualitative Kit – 10 copies of BCR1 / BCR2 and BCR3 transcript
- 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
3B1259	TRUPCR® PML-RARA Quantitative Kit	24 Reactions
3B1260	TRUPCR® PML-RARA Quantitative Kit	48 Reactions
3B1297	TRUPCR® PML-RARA Qualitative Kit	24 Reactions
3B1258	TRUPCR® PML-RARA Qualitative Kit	48 Reactions
3B1255	TRUPCR® PML-RARA Qualitative Kit	96 Reactions

