TRUPCR® AML Panel Kit

NEED

Leukemia is defined as neoplastic proliferation of abnormal white blood cells (WBCs) and Acute Myeloid Leukemia (AML) is a group of hematological diseases, phenotypic and genetically heterogeneous, characterized by clonal expansion of myeloid precursors with diminished capacity for differentiation.

AML represents 15 to 20% of the acute leukemia cases in children and 80% in adults. Usually one or more cytogenetic abnormalities are found in approximately 55% of patients with AML, and because of this it configures a strong prognostic factor within the WHO classification. Currently cytogenetic markers are the most important for risk stratification and treatment of AML patients. However, with the advent of new technologies, the detection of molecular markers such as point mutations, fusion genes and characterization of epigenetic and proteomic profiles, have begun to play an important role in how the disease is approached.

SOLUTION BY TRUPCR®

Recent evidence shows that the identification of new AML biomarkers contributes to a better understanding of the molecular basis of the disease, are significantly useful in screening, diagnosis, prognosis and monitoring of AML, as well as the possibility of predicting each individual´s response to treatment. TRUPCR® provides solution for detection of most relevant molecular biomarkers associated with AML and discusses its clinical importance in terms of risk prediction, diagnosis and prognosis.

TRUPCR® AML Panel Kit is intended for the qualitative detection of diagnostic and prognostic markers of Acute Myelogenous Leukemia in peripheral blood or bone marrow samples using real-time and conventional PCR system. It requires cDNA as template for fusion gene and DNA for other mutation detection. The DNA & RNA both should be extracted from the samples and then RNA should be converted to cDNA using kit components.

MARKERS

PRODUCT HIGHLIGHTS:

- Sample Type – EDTA Blood / Bone Marrow
- All Inclusive Kit as all reagents for cDNA chemistry, PCR and real-time PCR are included
- Sensitive to detect up to 10 copies of fusion transcripts (AML1-ETO, CBFB-MYH11, BCR-ABL1, PML-RARA, RBM15-MKL1, DEK-CAN, SET-CAN) and up to 1% mutant allele in background of 98% wild type allele (c-KIT, NPM1, FLT3-ITD and FLT3-D835 & I836)
- 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

Mutation Variants detected by TRUPCR® AML Panel Kit

Gene	Variant
BCR-ABL1	e13a2 & e14a2 (p210)
	e1a2 (p190)
PML-RARA	BCR1
	BCR2
	BCR3
AML1-ETO	RUNX1-RUNX1T1
CBFB-MYH11	Type A
	Type E
	Type D
FLT3	ITD
	TKD (D835Y, D835V, D835H & I836)
NPM1	Type A
	Type B
	TYPE D
C-KIT	D816V
RBM15-MKL1	RBM15_MKL1_e1-e5
DEK-CAN	DEK_CAN_e9-e18
SET-CAN	SET_CAN_e7-e18
ABL1	Control gene

ORDERING INFORMATION

Cat. No.	Description	Size
3B1401	TRUPCR® AML Panel Kit	24 Reactions
3B1402	TRUPCR® AML Panel Kit	48 Reactions

PUBLICATIONS

- Manorama Bhargava, Hematologic Malignancies Case Studies in Cytogenetic and Molecular Genetics, 2021, page number 19-22. (https://link.springer.com/book/10.1007%2F978-981-33-4799-1#authorsandaffiliationsbook

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