

One-Step RT-PCR for BCR-ABL Screening M,m, μ

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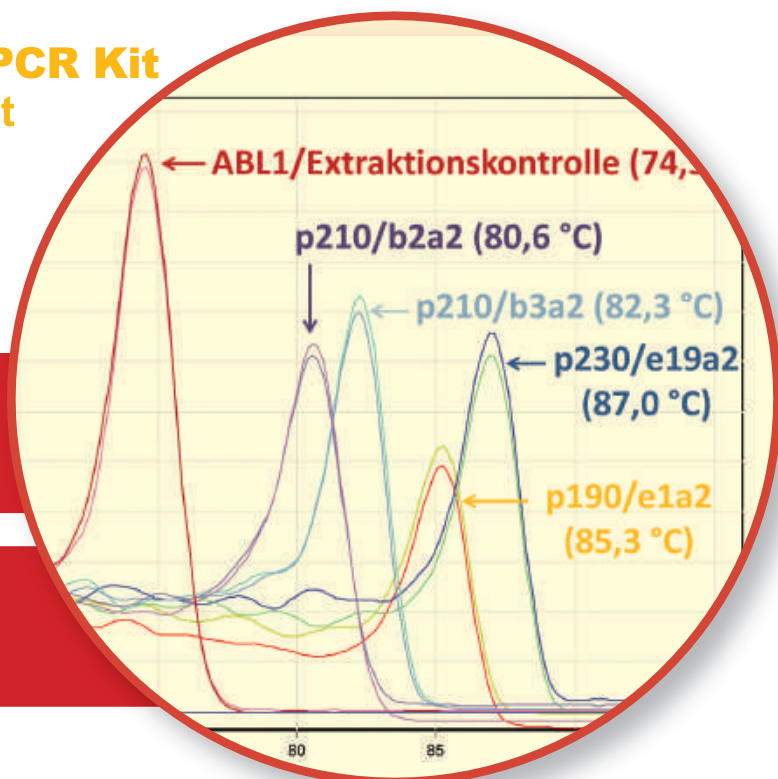


Bio Products

- **BCR-ABL**
first-line Screening
M,m, μ
- **One-Step Real-Time RT-PCR Kit**
to detect the 4 most frequent
BCR-ABL1 translocations
- **fast and**
accurate results

Optimal first-line diagnostics
➔ successful therapy

One-Step Real-Time RT-PCR
of the four most frequent
BCR-ABL1 translocations



The discovery of molecular mechanisms of oncogenic fusion genes was the start of a new era in understanding hematologic malignancies. Leukemia represents a massive health problem and is divided into four large leukemia types (ALL, CLL, AML, CML).

Chronic myeloid leukemia (CML) is characterized by the presence of the so-called Philadelphia chromosome. This abnormal chromosome is characterized by a translocation between parts of chromosome 9 and 22. The result is the fusion gene BCR-ABL1 which is specific for CML but can even be found in 25-30% of all acute lymphoblastic leukemia (ALL) cases.

Several BCR-ABL1 gene variants are described in leukemia patients and divided by their breakpoints and encoded proteins into p210 (M/Major), p190 (m/minor), p230 (μ /micro) and some very rare fusions.

In CML patients mainly the variant BCR-ABL1 p210 is detected, however in ALL patients the gene fusion p190 is predominant. One of the most recent method which is applicable to CML and AML patients is Real-Time RT-PCR from blood samples.

Our new *BioPro BCR-ABL1 Multiplex* assay is optimized to detect most clinical relevant variants of BCR-ABL fusion genes.

BCR-ABL Introduction

The **BCR-ABL Multiplex Screening Kit** from **BioProducts** is a Real-Time RT-PCR based kit for the **qualitative detection** of the four most frequent BCR-ABL1 translocations p190 (e1a2), p210 (b2a2 and b3a2) and p230 (e19a2) in a single reaction

and is therefore suited for the analysis of these **BCR-ABL1** variants in specimens of patients with **CML** (chronic myeloid leukemia) as well as **ALL** (acute lymphoblastic leukemia).

Technical Information

Number of tests per package:	24
Sample Material:	RNA isolated from bone marrow or anticoagulated whole blood
Target regions:	Transcripts of the four most frequent BCR-ABL1 fusion variants (see Fig. 1)
Method of detection:	Detection of a present BCR-ABL1 translocation by a specific hydrolysis probe and identification of the break point variant by melt curve analysis
Test principle:	One-Step RT-PCR; i.e. reverse transcription of RNA and Real-Time PCR amplification in the same reaction tube
Extraction Control:	Parallel detection of the ABL1 „house-keeping“ gene by a specific hydrolysis probe and by melt curve analysis
Positive Control:	p210 (b3a2) and ABL1 DNA fragments
Compatible Instruments:	Common Real-Time PCR cycler equipped with FAM/SYBR, VIC/JOE/HEX and Cy5 fluorescence channels (e.g. LC480 II, ABI7500, Rotor-Gene)

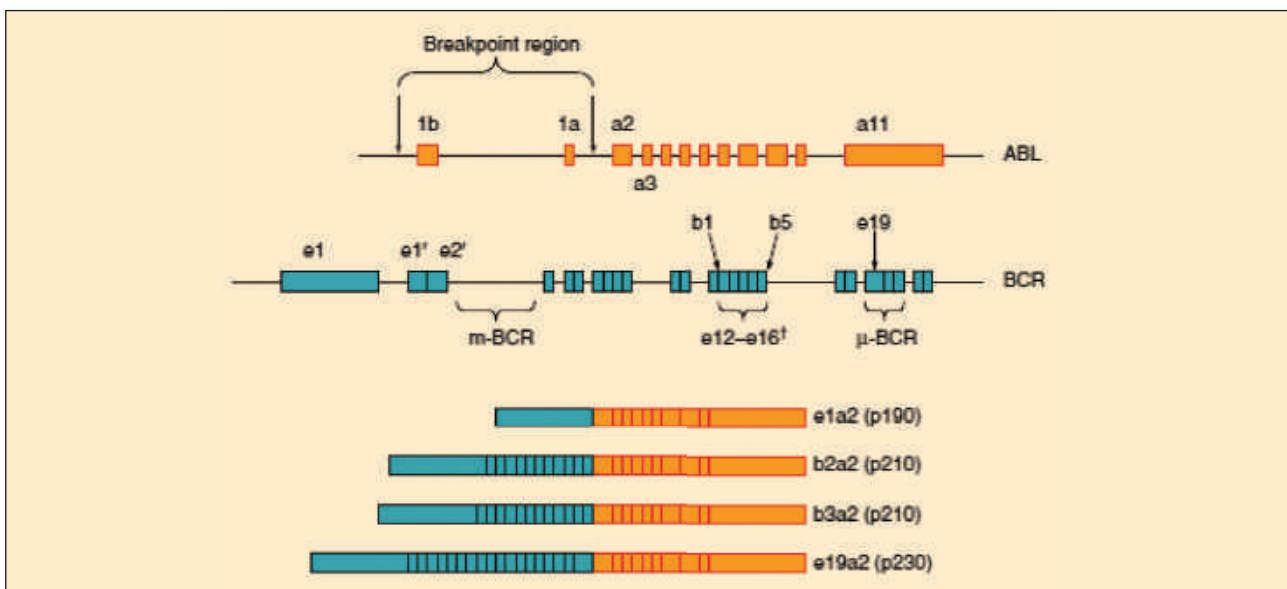


Fig. 1 The ABL, BCR gene and the four with the BioPro BCR-ABL1 Multiplex Kit identifiable fusion transcripts (1).

Order Information

Product Name	Description	Cycler	Size	Cat. No.
BioPro BCR-ABL1 Multiplex	One-Step Real-Time screening kit to detect the 4 most frequent BCR-ABL1 translocations	Commercial cycler equipped with FAM/SYBR, VIC/JOE/HEX and Cy5 fluorescence channels LC 480, ABI 7500, Rotorgene	24	BP101



[1] Luu MH, Press RD. BCR-ABL PCR testing in chronic myelogenous leukemia: molecular diagnosis for targeted cancer therapy and monitoring. Expert Rev Mol Diagn. 2013 Sep;13(7):749-62.