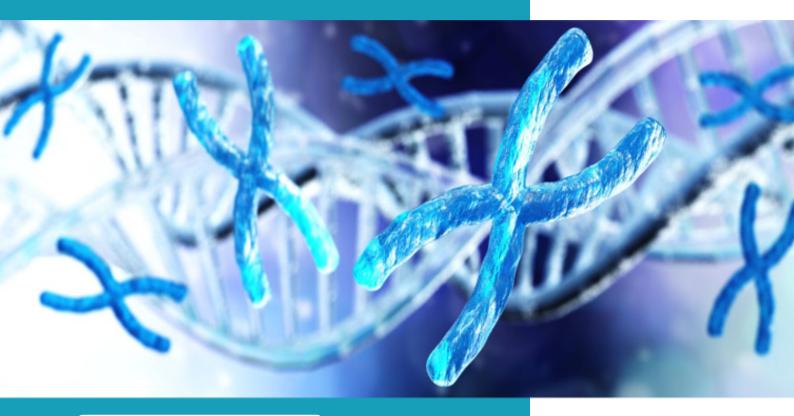
# REALQUALITY ONCOHEMATOLOGY

Kits for the detection of most important oncohematology traslocations by One-Step Real-Time RT PCR



BCR-ABL p210

BCR-ABL p190

PML-RARa bcr1

PML-RARa bcr2

PML-RARa bcr3

**AML1-ETO** 

CBFβ-MYH11 (INV 16)

WT1

Developed in accordance with Europe Against Cancer (EAC) Guidelines - Leukemia 2003



# **BCR-ABL Translocations in chronic** myeloid leukemia (CML)

### BCR-ABL p210

### REALQUALITY ► RQ-BCR-ABL p210 One-Step (ref. RQ-105)



#### **DESCRIPTION:**

REALQUALITY RQ-BCR-ABL p210 One-Step is a CE-IVD kit for the identification and quantification of the t(9;22) (q34;q11) translocation, in the variant p210 (M-bcr b3a2 and b2a2 transcripts), which involves the ABL proto-oncogene on chromosome 9 and part of the BCR gene on chromosome 22. The test is based on reverse transcription and Real-Time PCR in a single step.

The device was developed in accordance with the Europe Against Cancer (EAC) guidelines, validated using the "Raccomandazioni e Indicazioni Laboratoristiche" of the LabNet network, approved for use in the LabNet network.

#### **PRODUCT CHARACTERISTICS:**

- The device is validated on RNA extracted from leukocyte pellet.
- Requires 5 µL of extracted RNA/reaction at the concentration of 40ng/µL.
- Includes dUTP/UNG system for contamination prevention and a fluorescence normalizer.
- The test allows the quantification of the M-bcr transcripts if used in combination with the **REALQUALITY** RQ-BCR-ABL p210 STANDARD for monitoring the Minimal Residual Disease (MRD).
- The device allows the experssion of results in International Scale (IS), if used in combination with BCR-ABL p210 REFERENCE.
- The test is based on reverse transcription and Real-Time PCR in a single step.
- The assay shares the same thermal profile of the REALQUALITY RQ-BCR-ABL p190 One-Step kit.
- Validated on the most common Real-Time PCR thermocyclers.

- Ready-to-use reagents for Reaverse Transcrition and Real-Time PCR.
- Positive control (DNA containing parts of the BCR-ABL p210 and ABL sequences).

### BCR-ABL p210

### REALQUALITY ► RQ-BCR-ABL p210 STANDARD (ref. RO-54-SM)



#### **DESCRIPTION:**

Ready-to-use single-plasmid standards for quantification of the transcripts of BCR-ABL p210 (M-bcr), ABL and GUSB.

The product has been validated for use with the kit REALQUALITY RQ-BCR-ABL p210 One-Step.

#### PRODUCT CHARACTERISTICS:

Standards calibrated with IRMM ERM-AD623 BCR-ABL1 (certified reference material of known titer). Single plasmid standards containing 2 specific fragments from BCR-ABL p210 and ABL sequences.

#### **KIT CONTENT:**

6 standard points with concentrations ranging from 101 to 106 copies/reaction. The provided volume is sufficient for 6 standard curves.

### **▶ BCR-ABL p210 REFERENCE** (ref. 05-64-06)



#### **DESCRIPTION:**

RNA reference for molecular assays for detection and/or quantification of BCR-ABL p210 transcript.

#### **PRODUCT CHARACTERISTICS:**

Reference calibrated with "1st World Health Organization (WHO) International Genetic Reference Panel for quantitation of BCR-ABL translocation by RQ-PCR".

#### **KIT CONTENT:**

4 different mixes of total RNA from a cell line carrying the BCR-ABL t(9:22) p210 b3a2 translocation and a cell line not carrying the translocation with percentages of BCR-ABL p210 transcript close to 10%, 1% 0.1% and 0.01 % respectively.



### BCR-ABL p190

### REALQUALITY ► RQ-BCR-ABL p190 One-Step (ref. RQ-115)



#### **DESCRIPTION:**

REALQUALITY RQ-BCR-ABL p190 One-Step is a CE-IVD kit for the identification and quantification of the translocation t(9;22) (q34;q11), in the variant p190 (m-bcr e1a2 transcript), which involves the ABL protooncogene on chromosome 9 and part of the BCR gene on chromosome 22. The RNA of the BCR-ABL fusion gene are detected by one-step Real-time RT-PCR.

The device was developed in accordance with the Europe Against Cancer (EAC) guidelines.

#### **PRODUCT CHARACTERISTICS:**

- The device is validated on RNA extracted from leukocyte pellet.
- Requires 5 µL of extracted RNA/reaction at the concentration of 40ng/µL.
- Includes dUTP/UNG system for contamination prevention and a fluorescence normalizer.
- The test allows the quantification of the m-bcr transcripts if used in combination with the **REALQUALITY** RQ-BCR-ABL p190 STANDARD.
- Real-time reverse transcription and amplification take place in a single step (Real-Time RT-PCR).
- The assay shares the same thermal profile of the REALQUALITY RQ-BCR-ABL p210 One-Step kit.
- Validated on the most common Real-Time PCR thermocyclers.

- Ready-to-use reagents for Real time amplification.
- Positive control (DNA containing parts of the BCR-ABL p190 and ABL sequences).



## BCR-ABL p190

### REALQUALITY ► RQ-BCR-ABL p190 STANDARD (ref. RQ-116)



#### **DESCRIPTION:**

Ready-to-use quantification standards for quantification of BCR-ABL m-bcr (p190) and ABL gene transcripts.

The product has been validated for use with the kit REALQUALITY RQ-BCR-ABL p190 One-Step.

#### **PRODUCT CHARACTERISTICS:**

Standards calibrated by verifying the ABL target with IRMM ERM-AD623 BCR-ABL1 (certified plasmid DNA reference)

- 5 aliquots of the quantification standards (DNA containing 2 specific cDNA fragments derived from BCR-ABL p190 and ABL transcripts)
- Concentration range of the standards is 10<sup>2</sup> to 10<sup>6</sup> copies/reaction. The provided volume is sufficient for 6 standard curves.

# PML-RARa translocations in Acute Promyelocytic Leukemia (APL) and **Acute Myeloid Leukemia (AML)**

## PML-RARa bcr1, bcr2 and bcr3

**REALQUALITY** 

► RQ-PML-RARa bcr 1 One-Step

(ref. RQ-179)

► RQ-PML-RARa bcr 2 One-Step

(ref. RQ-181)

► RQ-PML-RARa bcr 3 One-Step

(ref. RQ-183)



#### **DESCRIPTION:**

REALQUALITY RQ-PML-RARa One-Step are CE-IVD kits for the identification and quantification of the bcr1, bcr2 and bcr3 variants of the PML-RARa fusion transcript resulting from the translocation t(15;17) (q22;q21) involving the PML gene on chromosome 15 and the RARa gene on chromosome 17, by one-step Real-time RT-PCR.

The products have been validated for use with the kit REALQUALITY RQ-PML-RARa bcr1, bcr2 and bcr3 STANDARD.

#### **PRODUCT CHARACTERISTICS:**

- The device are validated on RNA extracted from leukocyte pellet.
- Requires 5 µL of extracted RNA/reaction at the concentration of 40ng/µL.
- Includes dUTP/UNG system for contamination prevention and a fluorescence normalizer.
- The tests allow the quantification of the PML-RARa bcr1, PML-RARa bcr2, PML-RARa bcr3 transcripts if used in combination with the REALQUALITY RQ-PML-RARa STANDARDS (REALQUALITY RQ-PML-RARa bcr1 STANDARD, REALQUALITY RQ-PML-RARa bcr2 STANDARD, REALQUALITY RQ-PML-RARa bcr3 STANDARD), the assays allow the absolute quantification of the number of PML-RARa bcr transcripts present in the test sample, normalized to the number of transcripts of the housekeeping ABL gene.
- ABL reference gene for the normalization of the quantitative results.
- Real-time reverse transcription and amplification take place in a single step (Real-Time RT-PCR).
- Validated on the most common Real-Time PCR thermocyclers.

- Ready-to-use reagents for Real-Time PCR amplification.
- Positive control (single plasmid containing 2 cDNA fragments for PML-RARa specific variants and ABL targets).



## PML-RARa bcr1, bcr2 and bcr3

### REALQUALITY

► RQ-PML-RARa bcr 1 STANDARD

(ref. RQ-179)

► RQ-PML-RARa bcr 2 STANDARD

(ref. RQ-181)

► RQ-PML-RARa bcr 3 STANDARD

(ref. RQ-183)



#### **DESCRIPTION:**

Ready-to-use single-plasmid standards for quantification of RQ-PML-RARa bcr1, bcr2 and bcr3 variants and ABL gene transcripts.

The products have been validated for use with the kit REALQUALITY RQ-PML-RARa bcr1 One-Step, REALQUALITY RQ-PML-RARa bcr2 One-Step, REALQUALITY RQ-PML-RARa bcr3 One-Step.

#### PRODUCT CHARACTERISTICS:

Standards calibrated with IRMM ERM-AD623 BCR-ABL1 (certified plasmid DNA reference).

- 5 aliquots of the quantification standards (DNA containing 2 specific cDNA fragments derived from PML-RARa variants and ABL).
- Concentration range of the standards is 10<sup>2</sup> to 10<sup>6</sup> copies/reaction. The provided volume is sufficient for 6 standard curves.

# **AML1-ETO translocations in Acute** Myeloid Leukemia (AML)

## **AML1-ETO**

### REALQUALITY ► RS-AML1-ETO (ref. RQ-S59)



#### **DESCRIPTION:**

REALQUALITY RS-AML1-ETO is a CE-IVD kit for the identification and quantification of the translocation t(8;21)(q22;q22), which involves the AML1 gene in chromosome region 21q22 and the ETO gene in chromosome region 8q22. The RNA of the AML1-ETO fusion gene are detected by Real-time PCR.

#### PRODUCT CHARACTERISTICS:

- The device is validated on cDNA derived from RNA of leucocyte pellet.
- Requires 5 µL of extracted cDNA/reaction derived to 1 µg of total RNA.
- Includes dUTP/UNG system for contamination prevention and a fluorescence normalizer.
- The test allows the quantification of the AML1-ETO transcripts if used in combination with REALQUALITY **RQ-AML1-ETO STANDARD.**
- The assay shares the same thermal profile of the REALQUALITY RS-INV 16 and RS-WTI kits.
- Validated on the most common Real-Time PCR thermocyclers.

#### KIT CONTENT:

- Ready-to-use reagents for Real-Time PCR amplification.
- Positive control AML1-ETO (DNA containing parts AML1-ETO sequences).
- Positive control ABL (DNA containing parts ABL sequences).

### REALQUALITY ► RQ-AML1-ETO STANDARD



(ref. RO-60)

#### **DESCRIPTION:**

Ready-to-use quantification standards for quantification of BCR-ABL m-bcr (p190) and ABL gene transcripts.

The product has been validated for use with the kit REALQUALITY RQ-BCR-ABL p190 One-Step.

- 4 aliquots of the quantification standards (DNA containing cDNA fragments derived from AML1-ETO and ABL transcripts).
- Concentration range of the standards is 10<sup>2</sup> to 10<sup>5</sup> copies/reaction. The provided volume is sufficient for 10 standard curves.



# CBFβ-MYH11 translocations in Acute **Myeloid Leukemia (AML)**

### **CBF**β-MYH11 (INV 16)

### **REALQUALITY** ► RS-INV 16



(ref. RQ-S61)

#### **DESCRIPTION:**

REALQUALITY RS-INV 16 is a CE-IVD kit for the identification and quantification of the fusion transcript resulting from the pericentric inversion of chromosome 16, inv(16)(p13;q22) which involves the CBFβ gene in chromosome region 16q22 and MYH11 gene in chromosome region 16p13. The RNA of the INV 16 fusion gene are detected by Real-time PCR.

#### **PRODUCT CHARACTERISTICS:**

- The device is validated on RNA extracted from leukocyte pellet.
- Requires 5 µL of extracted cDNA/reaction derived to 1 µg retrotrascripted RNA.
- Includes dUTP/UNG system for contamination prevention and a fluorescence normalizer.
- The test allows the quantification of the INV 16 transcripts if used in combination with REALQUALITY RQ-**INV 16 STANDARD.**
- The assay shares the same thermal profile of the REALQUALITY RS-AMLI-ETO and RS-WTI kits.
- Validated on the most common Real-Time PCR thermocyclers.

#### KIT CONTENT:

- Ready-to-use reagents for Real-Time PCR amplification.
- Positive control INV 16 (DNA containing parts INV 16 sequences).
- Positive control ABL (DNA containing parts ABL sequences).

## REALQUALITY ► RQ-INV 16 STANDARD



(ref. RO-62)

#### **DESCRIPTION:**

Ready-to-use quantification standards for quantification of INV 16 and ABL gene transcripts.

The product has been validated for use with the kit REALQUALITY RS-INV 16.

- 4 aliquots of the quantification standards (DNA containing cDNA fragments derived from INV 16 and ABL
- Concentration range of the standards is 10<sup>2</sup> to 10<sup>5</sup> copies/reaction. The provided volume is sufficient for 10 standard curves.



# Wilms Tumor 1 gene (WT 1) expression in **Acute Myeloid Leukemia (AML)**

## Wilms Tumor 1 gene (WT 1)

### REALQUALITY ► RS-WT-1 (ref. RQ-S57)



#### **DESCRIPTION:**

REALQUALITY RS-WT-1 is a CE-IVD kit for the quantification and the expression Wilms Tumor 1 gene (WT 1), located in chromosome region 11p13. The test is based on amplification of cDNA corresponding to a fragment spanning the junction of exons 1 and 2 detected by Real-time PCR.

#### **PRODUCT CHARACTERISTICS:**

- The device is validated on RNA extracted from leukocyte pellet.
- Requires 5 µL of extracted cDNA/reaction derived to 1 µg retrotrascripted RNA.
- Includes dUTP/UNG system for contamination prevention and a fluorescence normalizer.
- The test allows the quantification of the WT 1 transcripts if used in combination with REALQUALITY RQ-WT-1 STANDARD.
- The assay shares the same thermal profile of the REALQUALITY RS-AML1-ETO and RS-INV 16 kits.
- Validated on the most common Real-Time PCR thermocyclers.

#### KIT CONTENT:

- Ready-to-use reagents for Real-Time PCR amplification.
- Positive control WT1 (DNA containing parts WT1 sequences).
- Positive control ABL (DNA containing parts ABL sequences).

### **REALQUALITY** ► RQ-WT-1 STANDARD



(ref. RQ-58)

#### **DESCRIPTION:**

Ready-to-use quantification standards for quantification of expression WT 1 and ABL gene transcripts.

The product has been validated for use with the kit REALQUALITY RS-WT-1.

- 4 aliquots of the quantification standards (DNA containing cDNA fragments derived from WT 1 and ABL
- Concentration range of the standards is 10<sup>2</sup> to 10<sup>5</sup> copies/reaction. The provided volume is sufficient for 10 standard curves.



### BCR-ABL p210 (Real Time PCR One-Step)

#### ORDERING INFORMATION

| PRODUCT                              | FORMAT                               |
|--------------------------------------|--------------------------------------|
| REALQUALITY RQ-BCR-ABL p210 One-Step | 50 test                              |
| REALQUALITY RQ-BCR-ABL p210 One-Step | 100 test                             |
| DEALOUALITY DO BCD-ARL 6210 STANDARD | 6 sessions                           |
|                                      | 4 x 15 µL                            |
|                                      | REALQUALITY RQ-BCR-ABL p210 One-Step |

### BCR-ABL p190 (Real Time PCR One-Step)

#### **ORDERING INFORMATION**

| CODE      | PRODUCT                              | FORMAT     |
|-----------|--------------------------------------|------------|
| RQ-115-4M | REALQUALITY RQ-BCR-ABL p190 One-Step | 50 test    |
| RQ-115-6M | REALQUALITY RQ-BCR-ABL p190 One-Step | 100 test   |
|           |                                      |            |
| RQ-116-SM | REALQUALITY RQ-BCR-ABL p190 STANDARD | 6 sessions |

### PML-RARa bcrl (Real Time PCR One-Step)

#### **ORDERING INFORMATION**

| CODE      | PRODUCT                               | FORMAT     |
|-----------|---------------------------------------|------------|
| RQ-179-4M | REALQUALITY RQ-PML-RARa bcrl One-Step | 50 test    |
| RQ-179-6M | REALQUALITY RQ-PML-RARa bcrl One-Step | 100 test   |
|           |                                       |            |
| RQ-180-SM | REALQUALITY RQ-PML-RARa bcrl STANDARD | 6 sessions |

### PML-RARa bcr2 (Real Time PCR One-Step)

#### **ORDERING INFORMATION**

| CODE      | PRODUCT                               | FORMAT     |
|-----------|---------------------------------------|------------|
| RQ-181-4M | REALQUALITY RQ-PML-RARa bcr2 One-Step | 50 test    |
| RQ-181-6M | REALQUALITY RQ-PML-RARa bcr2 One-Step | 100 test   |
| RQ-182-SM | REALQUALITY RQ-PML-RARa bcr2 STANDARD | 6 sessions |

### PML-RARa bcr3 (Real Time PCR One-Step)

#### **ORDERING INFORMATION**

| CODE      | PRODUCT                               | FORMAT     |
|-----------|---------------------------------------|------------|
| RQ-183-4M | REALQUALITY RQ-PML-RARa bcr3 One-Step | 50 test    |
| RQ-183-6M | REALQUALITY RQ-PML-RARa bcr3 One-Step | 100 test   |
|           |                                       |            |
| RQ-184-SM | REALQUALITY RQ-PML-RARa bcr3 STANDARD | 6 sessions |

### INV 16 (Real Time PCR Two-Steps) **ORDERING INFORMATION**

| CODE      | PRODUCT                        | FORMAT      |
|-----------|--------------------------------|-------------|
| RQ-S61-48 | REALQUALITY RS-INV 16          | 48 test     |
| RQ-S61-96 | REALQUALITY RS-INV 16          | 96 test     |
|           |                                |             |
| RQ-62-ST  | REALQUALITY RS-INV 16 STANDARD | 10 sessions |

### **AML1-ETO** (Real Time PCR Two-Steps)

#### **ORDERING INFORMATION**

| CODE      | PRODUCT                          | FORMAT      |
|-----------|----------------------------------|-------------|
| RQ-S59-48 | REALQUALITY RS-AML1-ETO          | 48 test     |
| RQ-S59-96 | REALQUALITY RS-AML1-ETO          | 96 test     |
|           |                                  |             |
| RQ-60-ST  | REALQUALITY RS-AML1-ETO STANDARD | 10 sessions |

### WT 1 (Real Time PCR Two-Steps) **ORDERING INFORMATION**

| CODE      | PRODUCT                      | FORMAT      |
|-----------|------------------------------|-------------|
| RQ-S57-48 | REALQUALITY RS-WT-1          | 48 test     |
| RQ-S57-96 | REALQUALITY RS-WT-1          | 96 test     |
|           |                              |             |
| RQ-58-ST  | REALQUALITY RS-WT-1 STANDARD | 10 sessions |

### **Reverse Transcription Kit**

#### ORDERING INFORMATION

| CODE     | PRODUCT              | FORMAT  |
|----------|----------------------|---------|
| 06-R1-25 | Rev-T Kit RQ variant | 25 test |
| 06-R1-50 | Rev-T Kit RQ variant | 50 test |