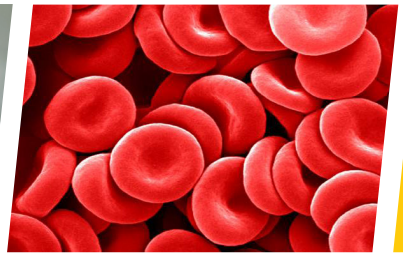
inno-train DIAGNOSTIK





RBC-FluoGene ABO
A1 OR NON-A1?

Subtyping of ABO*A alleles in accordance with OPTN Guidance for ABO Sub-typing Organ Donors for Blood Types A and AB

For Research Use Only. Not for use in diagnostic procedures.

BACKGROUND

Blood type B candidates, a blood group more common in underrepresented minorities, have longer kidney waiting times. In December 2014, the Kidney Allocation System (KAS) went into effect, which allows for blood types A (non-A1) and AB (non-A1B) kidneys to be transplanted to blood type B recipients.

The goal of the above mentioned OPTN guidance document is to continue expanding organ access for candidates though transplanting "non-A1" donors.

This guidance document separates serological blood type A into various subtypes: A1, A2, A3, Ax, Aint...

As a kind of shortcut, OPTN Policies use the term "non-A1" for any subtype that is not A1; it describes the group of ABO*A alleles that are NOT ABO*A1.01 and ABO*A1.02.

Almost 20% of blood type A are non-A1. The aim is to detect reliably and cost effective the non-A1 subtypes among the blood type A kidney donors.

Within these 20% the predominant majority bear the antigen A2 (ABO*A2.01). This allele is defined by two SNPs: 467C>T and 1061delC.

RBC-FluoGene ABO detects specifically the SNP 1061delC. Therefore **RBC-FluoGene ABO** is able to separate reliably and cost effective the non-A1 among blood type A.

Currently (according to ISBT v1.1 171023) 82 non-ABO*A1 alleles are known.

Out of these 82 non-ABO*A1 alleles, 25 alleles bear the SNP 1061delC. That means, beside the allele ABO*A2.01 (phenotypically A2), 24 rare non-A1 subtypes are also detected.

Using **RBC-FluoGene ABO**, the user is enabled to test 4 samples on one plate (one run) within less than one hour.

Using this test, the user can easily, clearly and reliably separate the non-A1 from the A1 samples.

The TaqMan probe based assay is suitable for the realtime device "FluoQube" or for the endpoint detection with "FluoVista". The endpoint detection allows increased throughput, depending on the number of standard thermocyclers used.

Another advantage of **RBC-FluoGene ABO** is that it is a genotyping test.

OPTN Guidance documents says that subtyping results can only be used if

(i) Two different samples are being tested

- **RBC-FluoGene ABO** kits is designed in duplicate reactions, increasing test reliability.

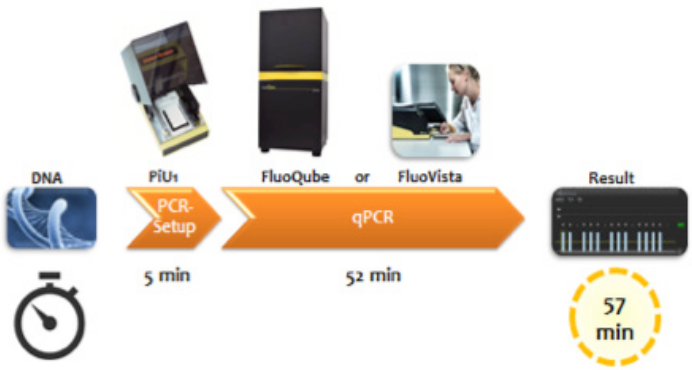
(ii) Both samples are taken before transfusion.

- **RBC-FluoGene ABO** is based on molecular methods with do not depend on when the samples are obtained.

ADVANTAGES OF -RBC FluoGene ABO

- **Fast, reliable, cost effective**
- **Typing of 4 samples in less than 60 minutes**
- **True realtime method due to TaqMan probes**
- **Independent from applied transfusions**

FluoGene Workflow



North American Division
108 Utica Street
Clinton NY 13323

Toll free: +1 888 352 2196
Fax: +1 315 381 5609

E-mail: info@innotrain.org
Web: www.innotrain.org

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