EUROPEAN COMMISSION
JOINT RESEARCH CENTRE
Institute for Reference Materials and Measurements

CERTIFIED REFERENCE MATERIAL
BCR® – 636

CERTIFICATE OF ANALYSIS

HUMAN BLOOD			
	Mass concentration in the reconstituted material[1)]		Number of accepted sets of data p
	Certified value [2)] [μg/L]	Uncertainty [3)] [μg/L]	
Cd	11.6	0.6	9
Pb	$0.52 \cdot 10^3$	$0.05 \cdot 10^3$	11

1) When the material is reconstituted according to the procedure specified in the instructions for use.
2) The value is the unweighted mean of p values, each value being the mean of a set of results obtained by a different method and/or laboratory. The certified values are traceable to the International System of Units (SI).
3) Expanded uncertainty with a coverage factor k = 2 according to the Guide to the Expression of Uncertainty in Measurement (GUM), corresponding to a level of confidence of about 95 %.

This certificate is valid for one year after purchase.

Sales date:

The entire contents of the vial must be reconstituted. The recommended minimum amount of the reconstituted material is 10 μL.

DESCRIPTION OF THE SAMPLE

The material consists of lyophilised human whole blood in brown glass vials each containing approximately 0.6 g dry matter with a residual moisture content of less than 2 % and equivalent to 3.0 mL of fresh whole blood. Sodium-EDTA was used as anticoagulant. No other preservatives were added.

NOTE

This material has been certified by BCR (Community Bureau of Reference, the former reference materials programme of the European Commission). The certificate has been revised under the responsibility of IRMM.

Geel, December 2002
Latest revision: April 2010

Signed:

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Joint Research Centre
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ANALYTICAL METHOD USED FOR CERTIFICATION

- Electrothermal Atomic Absorption Spectrometry
- Flame Atomic Absorption Spectrometry
- Inductively Coupled Plasma Mass Spectrometry
- Differential Pulse Anodic Stripping Voltammetry

PARTICIPANTS

- Analytisch Biochemisch Laboratorium, Assen (NL)
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- Istituto Superiore di Sanitá, Rome (IT)
- Robens Institute, University of Surrey (GB)
- Sporstoflaboratoriet, Odense Universitetshospital, Odense (DK)
- Statens arbeidsmiljøinstitutt, Oslo (NO)

SAFETY INFORMATION

This material was produced from blood from healthy Danish blood donors. Each portion of blood was tested negative for hepatitis B surface antigen, anti-HCV and anti HTLV-I/II. However, the material should be handled with adequate care as any material of human origin. **For *in vitro* use only.**

INSTRUCTIONS FOR USE

Before use the following instruction for reconstitution has to be followed:

- Allow the vial to reach ambient temperature before opening.
- Tap the bottom of the vial to loosen any blood material adhering to the stopper.
- Carefully remove the rubber stopper.
- Add 3.00 mL water (room temperature). Acceptable CV = 0.5 %.
- Replace rubber stopper and homogenize by continuous agitation on a mixing apparatus for at least 1 h.

The reference material should not be used for calibration due to possible differences in matrix between calibrant and sample. If the material is used to asses the performance of a procedure, the user should refer to the recommendations in the certification report.

STORAGE

Upon arrival, the material should be stored at - 20 ^{o}C or lower for not more than 12 months until use. However, the European Commission cannot be held responsible for changes that happen during storage of the material at the customer's premises, especially of opened samples.

LEGAL NOTICE

NOTE

A technical report on the production of BCR-636 is available on the internet (http://www.irmm.jrc.be). A paper copy can be obtained from IRMM on request.

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