

REF A11A01652

CAL 10 x 3 ml

IVD CE



HORIBA ABX SAS  
B.P. 7290  
34184 MONTPELLIER Cedex 4  
FRANCE

# ABX Pentra MultiCal

- Pentra C 200
- ABX Pentra 400

## Calibrator for the measurement of HORIBA Medical methods.

### Intended Use

**ABX Pentra Multical** is used for the calibration of quantitative HORIBA Medical methods, listed in the annex, on HORIBA Medical clinical chemistry analysers.

### Characteristics

- **ABX Pentra Multical** is a lyophilized calibrator based on human serum.
- The kit is composed of 10 vials of calibrator (lyophilizate for 3 ml).  
The concentrations and activities have been adjusted to ensure optimum calibration of the appropriate HORIBA Medical methods on clinical chemistry analysers.
- The origin of the biological additives is as follows:
 

ALT (GPT)	Porcine heart
AST (GOT)	Porcine heart
Albumin	Bovine plasma
Aldolase	Rabbit muscle
Alkaline phosphatase	Placenta (human, recombinant)
Amylase (total)	Porcine pancreas
Amylase (pancreatic)	Porcine pancreas
Cholesterol	Bovine plasma
Cholinesterase	Human serum
Creatinine kinase	Rabbit muscle
γ-GT	Porcine kidney
GLDH	Bovine liver
LD (LDH)	Porcine heart
Lipase	Human pancreas (recombinant)
Acid phosphatase	Human prostate / Potato
Triglycerides	Chicken egg yolk

  - *Reactive components*: human serum with chemical additives and tissue extracts of human and animal origin.
  - *Non-Reactive components*: stabilizers.
- **ABX Pentra Multical** should be used according to this calibrator notice and as specified in the respective instructions for use of the reagent. The manufacturer cannot guarantee its performance if used otherwise.

### Handling

1. Reconstitute the content of one vial with 3 ml of distilled or deionised water.  
Be careful when opening the rubber cap as some lyophilized material may be lost.
2. Allow the vial to stand at room temperature for at least 30 minutes.
3. Agitate the vial slowly, avoiding the formation of foam. Do not shake.
4. Remove the cap of the vial, use a pipette to transfer the required volume into a sample cup.
5. Place the sample cup on the instrument:
  - For **Pentra C 200** : Place the sample cup in the correct position on the instrument sample tray.
  - For **ABX Pentra 400** : Place the sample cup on the appropriate rack of the instrument.

### Materials Required but not Provided

- HORIBA Medical reagents and automated clinical chemistry analyzer.
- Standard laboratory equipment
- Distilled or deionised water

### Assigned Values

The calibrator values were determined using the method mentioned in the enclosed annex.  
Determinations were performed under strictly standardized conditions on HORIBA Medical analyzers using HORIBA Medical reagents and HORIBA Medical master calibrator. The calibration values were obtained via multiple assays performed in different analysers in several independent series. The calibration value specified is the median of the values obtained.  
The concentration of the constituent(s) are lot specific.

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Assigned values are indicated in the enclosed annex, Ref. 04710797.

These target values can also be downloaded from our web site [www.horiba.com](http://www.horiba.com).

Traceability of the assigned values are given in the tables below.

List of parameters standardized by the calibrator comparison method:

Parameter	Reference material
ALT	ERM-AD454
Albumin	ERM-DA470
Amylase	IRMM/IFCC-456
Total Bilirubin	SRM916a
Total Protein	SRM927c/VERICHEM 9460
Calcium	SRM909b
Cholesterol	SRM909b/ Abell-Kendall
CK-NAC	ERM-AD455
Creatinine	SRM909b
GGT	ERM-AD452
Glucose PAP	SRM965a
Glucose HK	SRM965a
Iron	SRM937
Magnesium	SRM909b
Urea / BUN	SRM909b
Uric Acid	SRM909b
Triglycerides	SRM909b

List of parameters standardized by comparison of methods with “pools” of human serum:

Parameter	Reference method
ALP	Original IFCC formulation (1983), manual measurement
AST	IFCC Reference Measurement Procedure (37°C) for AST
Direct Bilirubin	Primary reference material (weighed in purified material) Bilirubin ditaurate
Lactate	Primary reference material (weighed in purified material)
LDH	HORIBA Medical Reagent/manual measurement; Epsilon of NADH
Lipase	HORIBA Medical Reagent/manual measurement; Epsilon of methylresorufin
Phosphorus	Primary reference material (weighed in purified material) NERL

## Storage and Stability

Calibrators, in unopened vials, are stable up to the expiry date written on the label if stored at 2-8°C.

Criterion for the stability data: Recovery within ±5% of initial value.

Stability of components\* after the reconstitution of **ABX Pentra Multical** :

8 hours at 15°C to 25°C

2 days at 2°C to 8°C

2 weeks at -25°C to -15°C (only one freezing session)

\*Exceptions : see below.

Stability of direct bilirubin after reconstitution (when stored protected from light):

3 hours at 15°C to 25°C

8 hours at 2°C to 8°C

2 weeks at -25°C to -15°C (only one freezing session)

Stability of total bilirubin after reconstitution (when stored protected from light):

6 hours at 15°C to 25°C

1 day at 2°C to 8°C

2 weeks at -25°C to -15°C (only one freezing session)

This stability is obtained when vials are tightly recapped immediately after use and if contamination is avoided.

## Packaging spoiling

In case of protective packaging spoiling, do not use the calibrator if the damages might have an effect on the product performance.

## Waste Management

Please refer to local legal requirements.

## General Precautions

- **ABX Pentra Multical** should be used only for the determination of the calibration curve.
- This calibrator is for professional *in vitro* diagnostic use only.
- Observe the standard laboratory precautions for use.

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- **Warning:** Human source material. Treat as potentially infectious. Each plasma donor unit used in the preparation of this product has been tested by an FDA approved method and found nonreactive for the presence of HBsAg, HCV and antibody to HIV1/2. Because no known test method can offer complete assurance that hepatitis B virus, Human Immunodeficiency Virus (HIV) or other infectious agents are absent, the calibrators should be treated like patient specimens as potentially infectious and handled with appropriate cautions in accordance with good laboratory practices (1, 2).
- The calibrator vials should be discarded after use. Disposal of all waste material should be in accordance with local guidelines.
- Please refer to the MSDS associated with the calibrator.
- Do not use the product if there is visible evidence of biological, chemical or physical deterioration.

## Warning

It is the user's responsibility to verify that this document is applicable to the calibrator used.

## Reference

1. Occupational Safety and Health Standards : bloodborne pathogens. (29 CFR 1910. 1030). Federal Register July 1, 1998 ; **6** :267-280.
2. Council Directive (2000/54/EC). Official Journal of the European Communities. No. L262 from October 17, 2000: 21-45.

