ACCUCARE
CHOLINESTERASE
Butyrylthiocoline potassium hexacyanoferrate (III) method

QUANTITATIVE DETERMINATION OF CHOLENISTERASE
IVD

ORDER INFORMATION

REF: CHOLEN 25	Cont.	1x25 ml

CLINICAL SIGNIFICANCE

Cholinesterase is an enzyme present in plasma and synthesized by the liver. Its true physiological function is unknown, so its function may be to hydrolyze choline in plasma. Cholinesterase activity is usually measured for liver function, is a sensitive test of exposure to pesticides organ phosphorus and identification of patients with the atypical form of enzyme whose presents high sensitivity to succinyl-choline[1,5,6]. Clinical diagnosis should not be made on a single test result; it should integrate clinical and other laboratory data.

PRINCIPLE

Butyrylthiocholine is hydrolyzed by cholinesterase to produce thiocoline in the presence of potassium hexacyanoferrate (III), the absorbance decrease is proportional to the cholinesterase activity of the sample.

REAGENT COMPOSITION

Reagent I : Buffer Reagent
Reagent II : Butyrylthiocholine iodide Reagent

SAMPLE COLLECTION AND PRESERVATION

Serum.
Heparin or EDTA plasma.

REAGENT PREPARATION AND STORAGE

Mix 4 parts of Reagent I and 1 part of Reagent II.

REAGENT STABILITY

30 days at 2 - 8°C

LINEARITY

This method is linear upto 12000 U/l.

AUTOMATED PARAMETERS

Wavelength	405 nm
Cuvette	1 cm light path
Temperature	37° C
Measurement	Against water
Sample / Reagent	1:67
Reaction	Kinetic
Reaction Direction	Decreasing
Delay/Lag/Time	60 Secs
Interval Time	30 Secs
No. of Readings	03
Factor	62000
Blank Absorbance Limit	0.6
Low Normal at 37°C	4850 U/l
High Normal at 37°C	12000 U/l
Linearity	12000 U/l

ASSAY PROCEDURE

PIPETTE INTO TEST TUBES

SAMPLE	15µl
REAGENT	1000µl

Mix well and wait for 1 minute. Measure absorbance decrease after 30, 60 and 90 seconds. Determine the A/minute.

CALCULATION

Δ A/minute x 62000 = U/l cholinesterase

QUALITY CONTROL

Accutestrol N - H

REFERENCE INTERVAL

37°C 4850-12000 U/l

The reference values are to be considered as indicative only. Every laboratory should establish its own normal range.

BIBLIOGRAPHY

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C1 Type, Shed No. 3225, Chemical Zone, GIDC Sarigam,
SARIGAM - 396 155 (Dist. Valsad). INDIA
Tel : 91-22-2554 2109 / 2554 1558 Fax : 2554 3541
Email : accucare@labcarediagnostics.com
Website : www.labcarediagnostics.com