

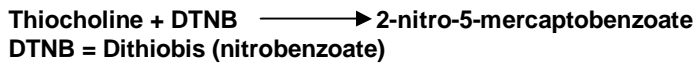
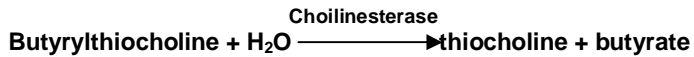
# BUTYRYL CHOLINESTERASE

**Colorimetric Kinetic Method**

**50 Tests**

## PRINCIPLE :

Butyryl Cholinesterase hydrolyses butyrylthiocholine to give thiocholine and butyrate. The reaction between thiocholine and DTNB gives 2-nitro-5-Mercaptobenzoate, a yellow compound which can be measured at 405 nm.



## SAMPLE :

Serum, heparinized plasma or EDTA plasma.

## NORMAL VALUES :

Children, men, women 3500 -8500 U/L

Women pregnant or taking oral

Contraceptives : 2400 -6000  $\mu$ /L

## REAGENTS :

1.	<b>Buffer</b> Phosphate buffer pH 7.7	50 mmol / L
2.	<b>Chromogen</b> DTNB	300 $\mu$ mol / L
3.	<b>Substrate</b> Butyrylthiocholine iodide	5 mmol / L

## STABILITY:

Stable until the expiry date specified when stored at +4 to +8 °C.

## PROCEDURE:

### Preparation of solutions:

#### Buffer / Chromogen

Dissolve Contents of Chromogen R2 in 75 ml of Buffer R1. Stable for 6 weeks at + 2 to + 8°C when stored protected from light..

#### Substrate

Dissolve the contents of R3 in 2.5 ml of d.water. Stable for 6 weeks at + 2 to + 8°C.

Pipette into cuvette: 1 cm Light Path

Buffer / Chromogen	1.50 ml
Sample	0.01 ml
Substrate	0.05 ml

Mix, assay is carried out at 25°C Read initial absorbance against air at 405 nm and start timer simultaneously. Read again after 30, 60 and 90 sec. Determine the mean absorbance change per minute (  $\Delta A$ /min) and use this in the calculation. Linearity up to 0.4  $\Delta A$ /min .

## CALCULATION :

The activity of cholinesterase:

$$\text{U/L} = 11730 \times \Delta A \text{ 405 nm/min.}$$

## QUALITY CONTROL:

For accuracy and reproducibility control: Assayed Multi-Sera, Normal and Elevated.

## REFERENCE :

Knedel, M., and R. Bottger. Klin. Wschr. 1967; 45: 325.

**BUTYRYL  
CHOLINESTERASE**

Colorimetric Method  
+4 to +8 °C                      50 Tests  
In vitro diagnostic use

CAT. No.                      CE 12 40

**REAGENTS**

R1 Buffer	80	ml
R2 Chromogen	powder	
R3 Substrate	powder	

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