



# Teco Diagnostics

## Intended Use

For the quantitative determination of Creatine Kinase in human serum.

## Principle

Creatine Kinase (CK) catalyzes the conversion of creatine phosphate and ADP to creatine and ATP. The ATP and glucose are converted to ADP and glucose-6-phosphate by hexokinase (HK). Glucose-6-phosphate dehydrogenase (G-6-PDH) oxidizes at the D-glucose-6-phosphate and reduces the NAD. The rate of NADH formation, measured at 340 nm, is directly proportional to serum CK activity.

## CONTACT US:

### TECO DIAGNOSTICS

1268 N. Lakeview Avenue  
Anaheim, CA 92807  
Tel: 714-463-1111  
Fax: 714-463-1169

#### Test:

Creatine Kinase (CK-NAC) Reagent (C512-60)

#### Number of Tests:

60 tests  
10 x 6 mL bottles

#### Format:

Powder

#### Method:

UV-Kinetic

#### Testing Procedure:

Manual

#### Storage Temperature:

2-8°C

#### Reconstituted Stability:

24 hours at 15-30°C  
21 days at 2-8°C

#### Wavelength:

340 nm

#### Linearity:

1,200 IU/L

#### Expected Values:

25-192 IU/L at 37°C  
10-109 IU/L at 30°C

It is strongly recommended that each laboratory establish its own normal range.

#### Reagent Deterioration:

The reagent should be discarded: (1) If reagent appears damp and clumped; (2) If the reconstituted CK reagent without added sample has an absorbance greater than 0.70 at 340 nm versus reagent grade water; (3) Failure to obtain accurate results in the assay of control materials

#### Limitations of Procedure:

Some inhibitors of CK activity: Excessive  $Mg^{++}$ ,  $Cl^-$ ,  $SO_4^{2-}$ , most heavy earth metals ( $Zn^{++}$ ,  $Cu^{++}$ ,  $Mn^{++}$ ), iodoacetate and other sulfhydryl binding agents, excess ADP, citrate, fluoride, L-thyroxine, and excess uric acid; This procedure measures total CK activity irrespective of its tissue or organ of origin; Lower than expected CK values have been reported in samples having high alkaline phosphatase activity.