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**Lab Dept:** Chemistry

**Test Name:** PSEUDOCHOLINSTERASE, TOTAL, SERUM

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***General Information***

**Lab Order Codes:** PSEUD

**Synonyms:** Cholinesterase (Pseudo), Total; Pseudochol

**CPT Codes:** 82480 – Cholinesterase, Serum

**Test Includes:** Pseudocholinesterase reported in U/L.

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***Logistics***

**Test Indications:** Monitoring exposure to organophosphorus insecticides; monitoring patients with liver disease, particularly those undergoing liver transplantation; identifying patients who are homozygous or heterozygous for an atypical gene and have low levels of pseudocholinesterase.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: 8518)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 - 2 days, performed daily

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

**Container:** SST (Gold, marble or red) tube

**Draw Volume:** 3 mL (Minimum: 1 mL) blood

**Processed Volume:** 1 mL (Minimum: 0.25 mL) serum

**Collection:** Routine blood collection

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum into a screw-capped plastic vial. Store and ship and refrigerated temperatures.

**Patient Preparation:** For cases of prolonged apnea following surgery, wait 24 hours before obtaining a specimen.

**Sample Rejection:** Specimens other than serum; warm specimens; hemolysis; lipemia; mislabeled or unlabeled specimens

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### ***Interpretive***

**Reference Range:**

<b>Males:</b>	3100 – 6500 U/L
<b>Females:</b>	
<18 years:	Not established
18 – 49 years:	1800 – 6600 U/L
> or = 50 years:	2550 – 6800 U/L

**Critical Values:** N/A

**Limitations:** There are some homozygous and heterozygous individuals who are sensitive to although their total pseudocholinesterase values are normal. A dibucaine inhibition test is necessary to confirm the presence of the abnormal allele in these individuals. Not useful for the differential diagnosis of jaundice. Certain drugs and anesthetic agents inhibit pseudocholinesterase activity. Therefore, it is recommended that blood specimens be drawn 24 – 48 hours post-operatively on those patients who have experienced prolonged apnea after surgery.

**Methodology:** Photometric, Acetylthiocholine Substrate

**References:** [Mayo Medical Laboratories](#) February 2018