



Aug 12, 2019

untitled protocol V.1

Khairil Asnan¹, Mohd. Sadzan Asram bin Aliming², Aprialdy Idrus², Diana Eka Pratiwi²

¹Biology Department, Universitas Negeri Makassar, ²Chemistry Department, Universitas Negeri Makassar

In Development dx.doi.org/10.17504/protocols.io.6fyhbpw



ABSTRACT

Cattle's blood component is compressed using centrifuge (5000 rpm for 10 minutes), then supernatant (erythrocytes) collected. Erythrocytes with a ratio of 3:1 (serum:supernatant), treated with initial mixing each with HCl (0.5 M) NaOH (0.5 M), and 30% H_2O_2 with an initial ratio of 1:1 (v/v). Each variable then treated by mixing $SnCl_2(1 M, 1:1 v/v)$, oleic acid (2:1 v/v), and $O_2(g)$ (0.5 L/m, 60s). The best sample then purified by heat about 800° C for 120 minutes. The highest calculated total iron mass is 240000 µg/100 ml (NaOH + oleic acid). Sample purification has increased the iron concentration up to 46.30% (m/m%).

GUIDELINES

Beware to react the blood with peroxide because it will produces bubbles

MATERIALS

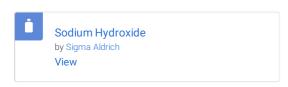
NAME Y	CATALOG # V	VENDOR
Sodium Hydroxide	View	Sigma Aldrich
STEPS MATERIALS		
NAME Y	CATALOG # V	VENDOR ~
Sodium Hydroxide	View	Sigma Aldrich

MATERIALS TEXT

[M] 0.5 Molarity (M)

8 37 °C

© 00:30:00



310 rpm Mix with sample for 20 seconds

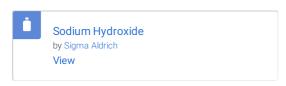
1



35000 rpm

2 Mix 2 ml blood sample sample with 2 ml NaOH & 37 °C © 00:00:30

[M] 0.5 Molarity (M)



dark green solution with strong odor

(3) 10 rpm after we rest the mixed solution for 30 seconds

3 Chelate reaction by adding **4 ml Oleic acid** into the previous mixed sample solution then let it sit for **00:00:30**. After that, mixed them by **10 rpm** for **00:00:30**.





This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

3