



SIGMA-ALDRICH

3050 Spruce Street  
Saint Louis, Missouri 63103 USA  
Telephone 800-325-5832 • (314) 771-5765  
Fax (314) 286-7828  
email: techserv@sial.com  
sigma-aldrich.com

## Product Information

### 4-Aminoantipyrine

Product Number **A 4382**

Store at Room Temperature

**Replacement for Product Code A3,930-0**

#### Product Description

Molecular Formula:  $C_{11}H_{13}N_3O$

Molecular Weight: 203.2

CAS Number: 83-07-8

Melting Point: 109 °C

Extinction Coefficient:  $E^{1\%}_{1\text{cm}} = 9.33$  (250 nm, water)

4-Aminoantipyrine, when used in the presence of phenol, can be utilized to measure peroxidase activity. Hydrogen peroxide oxidatively couples with 4-aminoantipyrine and phenol in the presence of peroxidase to yield a chromogen (quinoneimine dye) with a maximum absorbance of 500 nm. This allows 4-aminoantipyrine to be used as a reagent in the determination of chemicals whose method of detection is coupled through peroxidase and other coupling enzymes such as glucose (glucose oxidase) and cholesterol (cholesterol esterase and cholesterol oxidase).<sup>1,2</sup>

#### Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

#### Preparation Instructions

This product is soluble in water (5 mg/ml).

#### References

1. Allain, C. C., et al., Enzymatic Determination of Total Serum Cholesterol. *Clin. Chem.*, **20(4)**, 470-475 (1974).
2. Bauminger, B. B., Micro Method for Manual Analysis of True Glucose in Plasma Without Deproteinization. *J. Clin. Pathol.*, **27(12)**, 1015-1017 (1974).

TMG/RXR 6/03

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.