

## Quantitative determination of Retinyl Palmitate in oil/capsules using HPLC-UV

Vitamin A deficiency affects about 19 million pregnant women and 190 million preschool-age children, mostly in Africa and South-East Asia. Infants and children have increased vitamin A requirements to support rapid growth and to help fight infections.

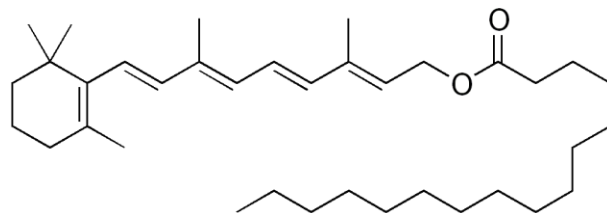
Vitamin A supplementation is thus recommended in infants and children 6–59 months of age as a public health intervention to reduce child morbidity and mortality in this region. Retinyl palmitate is common vitamin A supplement for treatment of vitamin A deficiency.

Vitas AM-077 provides a fast and selective method for determining retinyl palmitate. The method is based on extraction with acetone:isopropanol and detection by LC-UV.

Relevant method: AM-073- Quantitative determination of Retinol and retinylester in plasma from rats by LC-MS

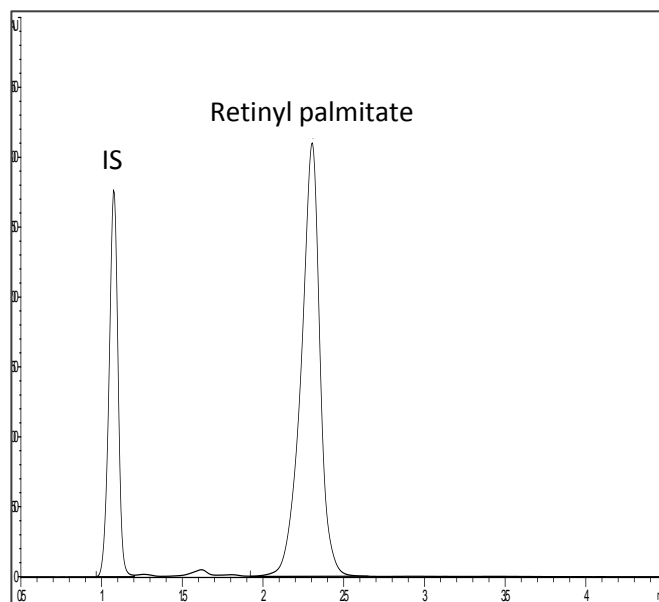
### **Method details:**

- Technique: HPLC-UV
- Sample Matrix: Oil/Capsules
- Sample amount: 300 µl or 1-2 capsules
- Range: 1-500 µg/ml
- Detection Limit: 0.1 µg/ml
- Interferences: n.a.
- Intra-day precision: 1%
- Inter-day precision: 3%
- Shipping temp: ambient, protected from light



*Structure of retinyl palmitate*

*HPLC-UV chromatogram of retinyl palmitate and the internal standard (IS) retinyl acetate*



Vitas is a Norwegian GMP certified chemical analysis contract lab, with 20 years experience in providing a high quality, custom chromatographic analytical service based on cutting-edge knowledge and technology.