

# Beta-hydroxybutyrate Assay

A plate based colorimetric assay to quantify  $\beta$ -hydroxybutyrate in biological samples as low as 10  $\mu$ M.

$\beta$ -hydroxybutyrate (BHB) is a ketone body produced during periods of prolonged fasting, low carbohydrate intake, or intense exercise. BHB serves as an alternative energy source for various tissues, including brain, heart, and skeletal muscle, when glucose availability is limited. BHB also acts as a signaling molecule, affecting gene expression, oxidative stress, inflammation and other cellular processes. AkrisBio's  $\beta$ -hydroxybutyrate assay is a simple, sensitive method of determining BHB content in samples as low as 10  $\mu$ M. In the assay, BHB is oxidized to acetoacetate forming NADH, which then reduces a nearly colorless tetrazolium to a highly colored formazan measured at OD 450 nm. The measurement of  $\beta$ -hydroxybutyrate levels is often used to assess ketosis, a metabolic state characterized by increased production and utilization of ketone bodies.

## Ordering Information

[Order Online »](#)

AKR-MA-0132	100 wells
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## Manuals, SDS & CofA

[View Online »](#)

## Handling & Storage

Long Term Storage      -20°C

Shipping                      Blue Ice

**Regulatory Status**      RUO - Research Use Only

## Product Details

Application                      Colorimetric detection

Species Reactivity              Species independent

**Technical Info / Product Notes**      For the Original Manufacturer's data sheet please [click here](#).



ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-  
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-  
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-  
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-  
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-  
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)