

# Minimise preanalytical variability and ensure success in your obesity and diabetes clinical trials

Stabilise peptides critical to your diabetes and obesity  
clinical trials for >96h<sup>1</sup>



# Don't compromise the accuracy of your clinical trials

The popularity of glucagon-like peptide-1 (GLP-1) as a key biomarker in diabetes and obesity disease research has grown thanks to the success of GLP-1 agonist medications.<sup>2</sup>

Despite this surge in relevance and an increasing need for new therapies, preanalytical guidelines for measuring these metabolic peptides is lacking.<sup>3</sup> Much of the success of medication development relies on the ability of clinical trials to yield accurate measurements.<sup>1</sup>

Using inefficient, non-standardised preanalytical processes can result in a variety of issues when analysing volatile metabolic peptides, such as GLP-1.

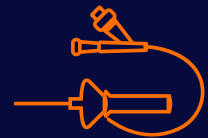
## Inefficient workflow

Stabilising peptides in standard blood collection tubes involves multiple steps and reagents that can increase the chance of operator variability, potentially impacting results



## Rapid degradation

Standard blood collection tubes do not support the long-term stability of biomarkers critical to your diabetes and obesity clinical trials<sup>1</sup>



Your choice of blood container impacts the accuracy of measuring GLP-1, glucose-dependent insulinotropic polypeptide (GIP) and glucagon<sup>3</sup>



## Improper stabilisation

Transportation conditions can result in significant variations in metabolic peptide quantification<sup>1</sup>



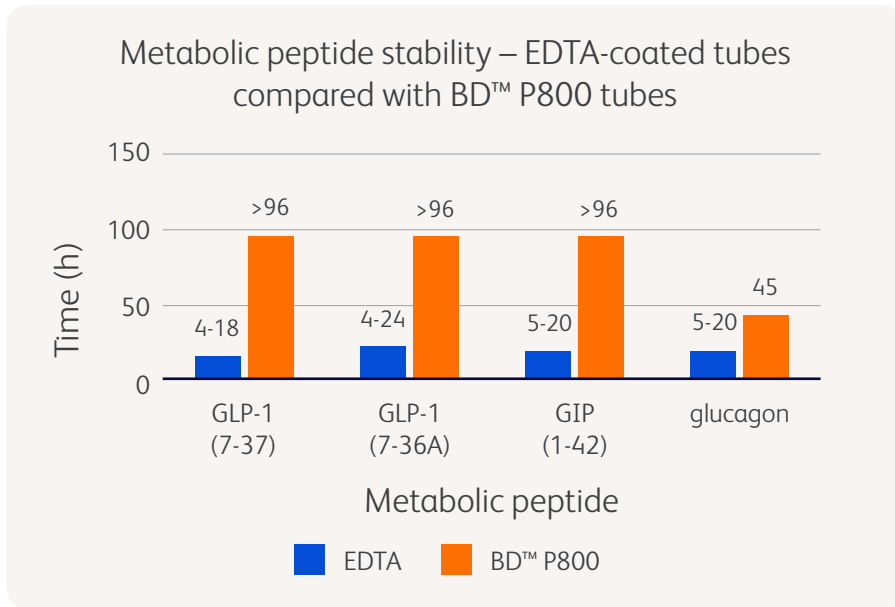
## Inaccurate measurement

When measuring metabolic peptides, standard blood collection tubes can introduce large sample variations<sup>1</sup>

# The solution – BD™ P800

The BD™ P800 Blood Collection tube contains a blend of proprietary protease inhibitors optimised to stabilise GLP-1, glucagon, oxyntomodulin (OXM) and GIP, enhancing metabolic peptide quantification accuracy.<sup>4</sup>

BD™ P800 efficiently inhibits the proteolysis of metabolic biomarkers crucial to diabetes and obesity clinical trials.<sup>1</sup>



**Stabilise peptides critical to your diabetes and obesity clinical trials for >96h<sup>1</sup>**

**Figure 1** Results from Yi et al 2015 study.<sup>1</sup> The results were obtained using human blood directly drawn into EDTA and BD™ P800 tubes and spiked with relevant peptides. The results were analysed using matrix assisted laser desorption ionisation mass spectrometry (MALDI-TOF MS). BD™ P800 provides a greater length of stability for GLP-1, GIP and glucagon than EDTA-coated tubes alone.<sup>1</sup>

BD™ P800 can help you meet the growing need for novel therapies by:

**Standardised materials**  
Using 75 years of experience in specimen management with our BD Vacutainer® portfolio, BD™ P800 includes solutions optimised for diabetes and obesity clinical trials<sup>4</sup>

**Protecting downstream applications**  
The BD proprietary cocktail of protease inhibitors will not interfere with colorimetric, chemiluminescence and electrochemiluminescence detection methods for insulin<sup>4</sup>

**Preserving sample integrity**  
Metabolic peptide half-lives can increase four-fold when compared with EDTA-coated tubes thanks to the rapid and maintained stabilisation provided by BD™ P800<sup>1</sup>

**Improved stabilisation**  
BD™ P800 exhibits increased stability for both active forms of GLP-1, compared with EDTA-coated tubes<sup>1</sup>

**Don't compromise the accuracy of your clinical trials. Use BD™ P800 – a proteomic solution you can trust**



Use a single tube to

collect



stabilise



transport



and store  
your samples.



## Ordering information

### BD™ P800 Tubes

Cat. no.	Draw volume (mL)	Size (mm)	Additive	Separator	Material	Label	Cap closure	Cap colour
366420	2.0	13 × 75	K <sub>2</sub> EDTA/Protease, esterase and DPP-IV inhibitor	None	PET	Paper	BD Hemogard™	
366421	8.5	16 × 100	K <sub>2</sub> EDTA/Protease, esterase and DPP-IV inhibitor	None	PET	Paper	BD Hemogard™	

All tubes are supplied in cases of 100

Available to buy online at [www.bdbiosciences.com](http://www.bdbiosciences.com) – search P800

Purchase in two different sizes – 2.0 mL and 8.5 mL.

#### Centrifugation conditions

2.0 mL tubes: 1,100 -1,300 × g for 10 minutes

8.5 mL tubes: 1,100 -1,300 × g for 20 minutes

#### Further information

Clinical and technical information is available on request.

The BD™ P800 tube is for Research Use Only (RUO). Not for use in diagnostic procedures.

#### References

1. Yi J, Warunek D, Craft D. Degradation and stabilization of peptide hormones in human blood specimens. *PLoS One* 2015;10(7):e0134427. 2. Couzin-Frankel J. Obesity meets its match. *Science* 2023;382(6676):1226–1227. 3. Rasmussen C, Richter MM, Jensen NJ, et al. Preanalytical impact on the accuracy of measurements of glucagon, GLP-1 and GIP in clinical trials. *Scand J Clin Lab Invest* 2023;83(8):591–598. 4. BD Vacutainer® P800 Blood Collection System for Plasma Metabolic Biomarker Preservation. Instruction for Use : Becton, Dickinson and Company; 2019.

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