Thermo Scientific B·R·A·H·M·S Prolactin KRYPTOR can be used either for direct measurement of active monomeric Prolactin or as a confirmation for initial determination obtained on another instrument.

**Physiological role of Prolactin**
The pituitary hormone Prolactin (PRL) has an important role in lactation during pregnancy and has also several other biological functions, e.g. in immunoregulation or angiogenesis. However, Prolactin can be found in 3 different forms in a patient’s serum: the monomeric Prolactin (mPRL), a dimeric form usually referred to as “big Prolactin” (bPRL) and a large complexed form, Macroprolactin or “big big Prolactin” (bbPRL). Of these 3 forms only mPRL is physiologically active (figure 1).

**Revealing Macropolactin interference**
Hyperprolactinemia is defined as high levels of active monomeric Prolactin (mPRL). There are several severe pathological reasons for Hyperprolactinemia such as pituitary adenomas, hypothalamic and pituitary diseases, chest wall diseases, hypothyroidism and hepatorenal disorders. Increased levels of Macropolactin (Macropolactinemia) are clinically not relevant. Distinguishing between active Prolactin and inactive Macropolactin is necessary to avoid false interpretation of results.

Thermo Scientific B-R-A-H-M-S Prolactin KRYPTOR can be used either for direct measurement of active monomeric Prolactin or as a confirmation for initial determination obtained on another instrument.

**Figure 1** Different isoforms of Prolactin and their physiological activity.

In order to provide reliable results most available methods for Prolactin detection require additional investigations. Thermo Scientific B-R-A-H-M-S Prolactin KRYPTOR shows minimal Macropolactin interference and therefore offers a valuable tool for identification of Hyperprolactinemia (figure 2).

**Figure 2** Different options for reliable determinations of active monomeric Prolactin.
Direct detection of active monomeric Prolactin:

- Thermo Scientific B-R-A-H-M-S Prolactin KRYPTOR

Article number 824.050

References

thermoscientific.com

©2016 Thermo Fisher Scientiﬁc Inc. All rights reserved.
All trademarks are the property of Thermo Fisher Scientiﬁc and its subsidiaries unless otherwise speciﬁed. KRYPTOR is a trademark of CIS bio international, licensed for use by B-R-A-H-M-S, a part of Thermo Fisher Scientiﬁc.

Thermo Fisher Scientiﬁc products are distributed worldwide; not all intended uses and applications mentioned in this printing are registered in every country.