A biomimetic enzyme-linked immunosorbent assay (BELISA) for the analysis of gonadorelin by using molecularly imprinted polymer-coated microplates

F. Torrini[1], L. Caponi[2], A. Bertolini[3], P. Palladino[1], F. Cipolli[2], A. Saba[3], A. Paolicchi[2], S. Scarano[1]*, M. Minunni[1]*

[1] Department of Chemistry Ugo Schiff', University of Florence, Sesto Fiorentino (FI), Italy

[2] Laboratory of Clinical Pathology, University Hospital of Pisa, Pisa, Italy

[3] Department of Surgical, Medical and Molecular Pathology and Critical Care Medicine, University of Pisa, Pisa, Italy

*Corresponding author: simona.scarano@unifi.it, maria.minunni@unifi.it

Electronic Supplementary Material (ESM)

BELISA assay

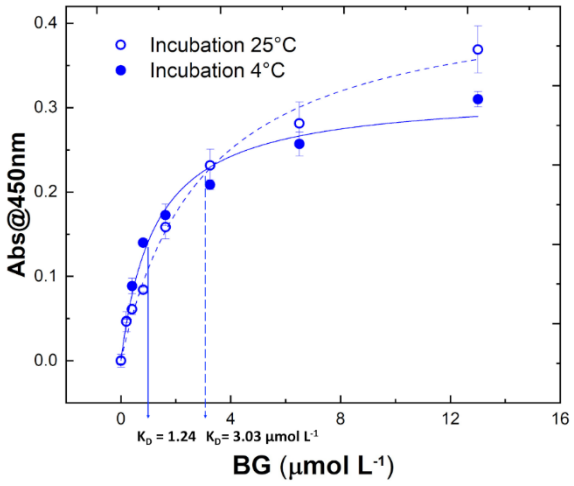

Fig. S1 Comparison of BG calibration curves performed at 4°C (solid line) and 25°C (dashed line), respectively

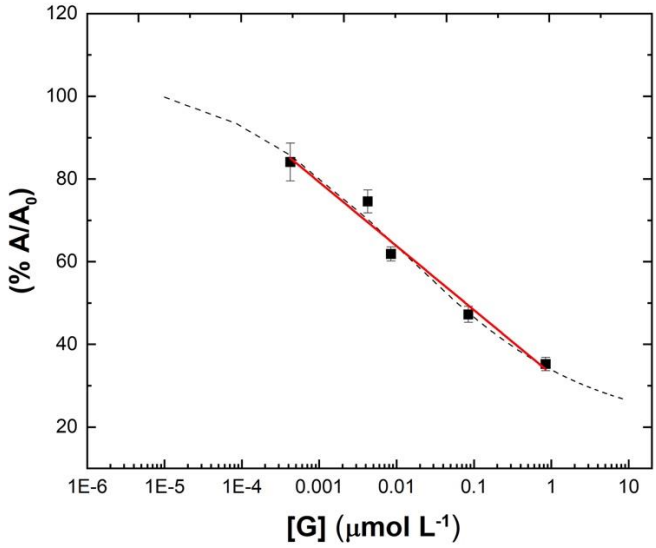

Fig. S2 The linear range of the sigmoid-shaped curve (0.42 to 850 nmol L^{-1}) obtained by analyzing G spiked standard solutions was highlighted in red

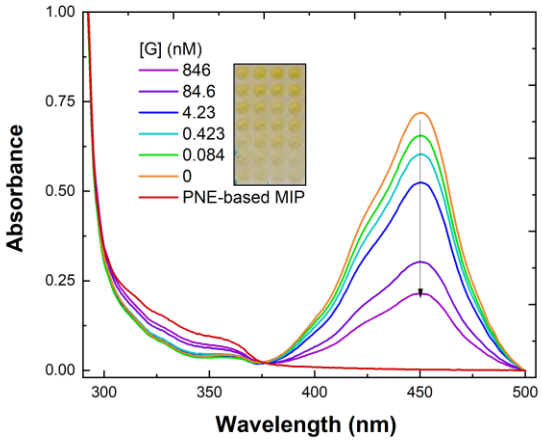

Fig. S3 Representative UV-vis absorption spectra of the BELISA assay, before data elaboration, and an illustrative inset photo of the assay

LC-MS/MS method

Table S1 MS operative parameters

Analyte	SRM transition (Da)	CE (V)	CXP (V)
G	592.1 → 221.1 (q)	44	6.4
	592.1 → 248.9 (Q)	38	7.1
	592.1 → 748.1 (q)	31	9.8
(Des-Pyr[1])-GnRH	536.4 → 110.2 (q)	32	5.7
	536.4 → 110.2 (Q)	71	5.5
	536.4 → 934.5 (q)	29	12.2

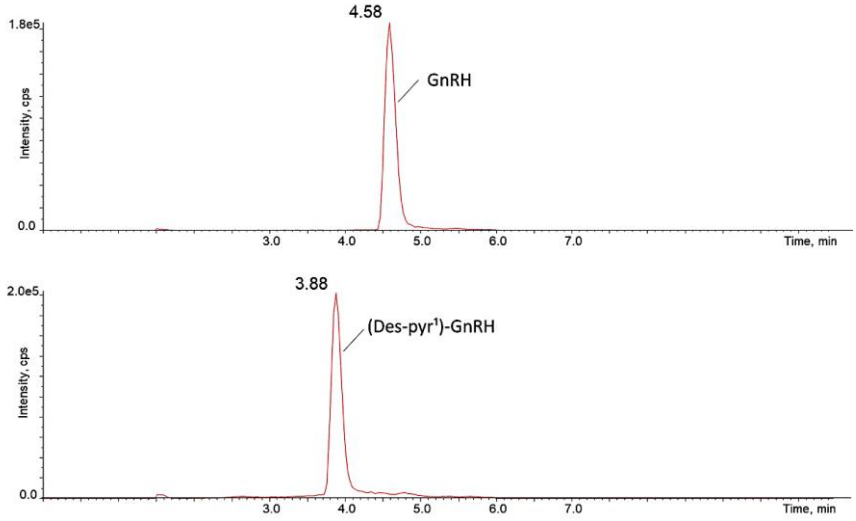

Fig. S4 Chromatographic profiles of G (aka GnRH) and ISTD (Des-pyr[1])-GnRH (from top to bottom) and relative retention times