Electronic Supplementary Material (ESI) for Analytical Methods.

Supplementary Material

Streptavidin-Biotin System-Mediated Immobilization of Bivalent Nanobody onto Magnetosome for Separation and Analysis of 3-Phenoxybenzoic Acid in Urine

Fang Tang, Yating Wang, Di Wang, Yayun Yang, Jiashu Chang, Huabo Sun, Shaopeng Gu*, Jinxin He*

College of Veterinary Medicine, Shanxi Agricultural University, Taigu, Shanxi 030801, PR China.

*Address correspondence to:

Dr. Shaopeng Gu, Tel: +86 0354-6288337; E-mail: shpgu@163.com.

Dr. Jinxin He, Tel: +86 0354-6288337; E-mail: hjx@sxau.edu.cn.

Table S1 Primers used in this study.

Primers	Oligonucleotide sequences (3'-5')
F-*Sac* I-Nb1	CGAGCTCATCACAAAGTGCAGTTGCAGGTGCAGCTCG TGGAGTC
R-linker-Nb1	CAGAGCCACCTCCGCCTGAACCGCCTCCACCCGAGGA GACGGTGACCTGGG
F-linker-Nb2	TTCAGGCGGAGGTGGCTCTGGCGGTGGCGGTCAGGTG CAGCTCGTGGAGTCTG
R-*Hind* III-Nb2	CAAGCTTATGGTGATGGTGATGATGGACGGTGACCTG GGTCCC
Overlap-F-*Sac* I	CGAGCTCATCACAAAGTGCAGTTG
Overlap-R-*Hind* III	CAAGCTTATGGTGATGGTGATGATGGACG

Highlight in blue indicates restriction enzyme sites. The linker sequences are underlined.

Table S2 Physical characteristics of BMPs, BMPs-SA, and BMP-SA-Biotin-Nb2.

Types	Hydrated radius (nm)	Zeta potential (mV)	Polydispersity
BMPs	251.4 ± 2.254	-61.37 ± 2.03	0.0247 ± 0.008
BMP-SA	274.4 ± 3.257	-42.35 ± 2.68	0.0435 ± 0.005
BMP-SA-Biotin-Nb2	296.5 ± 2.46	-38.64 ± 3.11	0.065 ± 0.009

Fig. S1 TEM images of particles of BMPs (A), BMP-SA (B), and BMP-SA-Biotin-Nb2 (C).

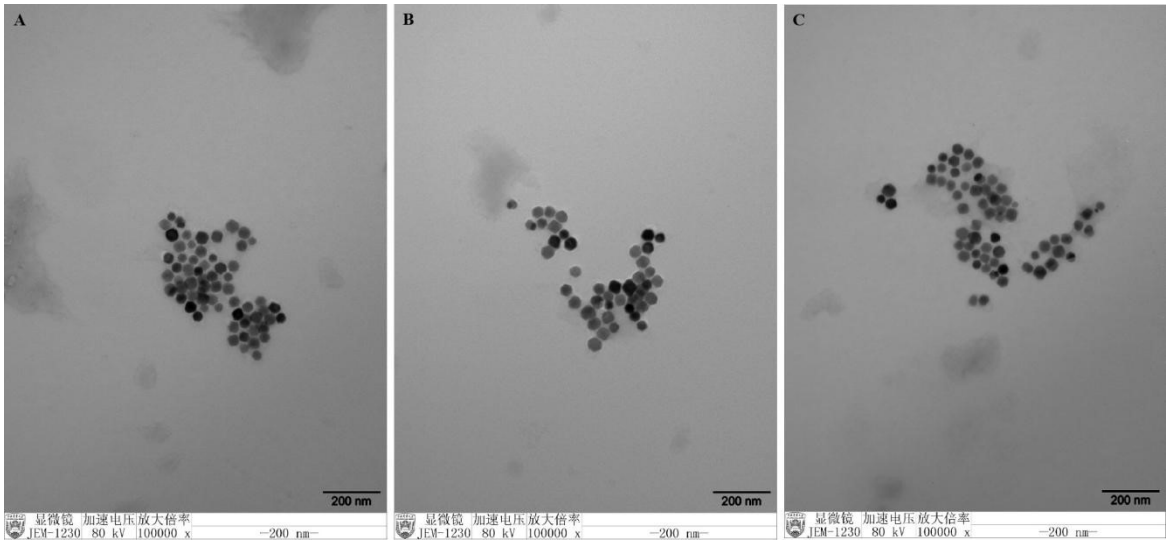

Fig. S2 Particles size distribution of BMPs (A), BMP-SA (B), and BMP-SA-biotin-Nb2 (C).

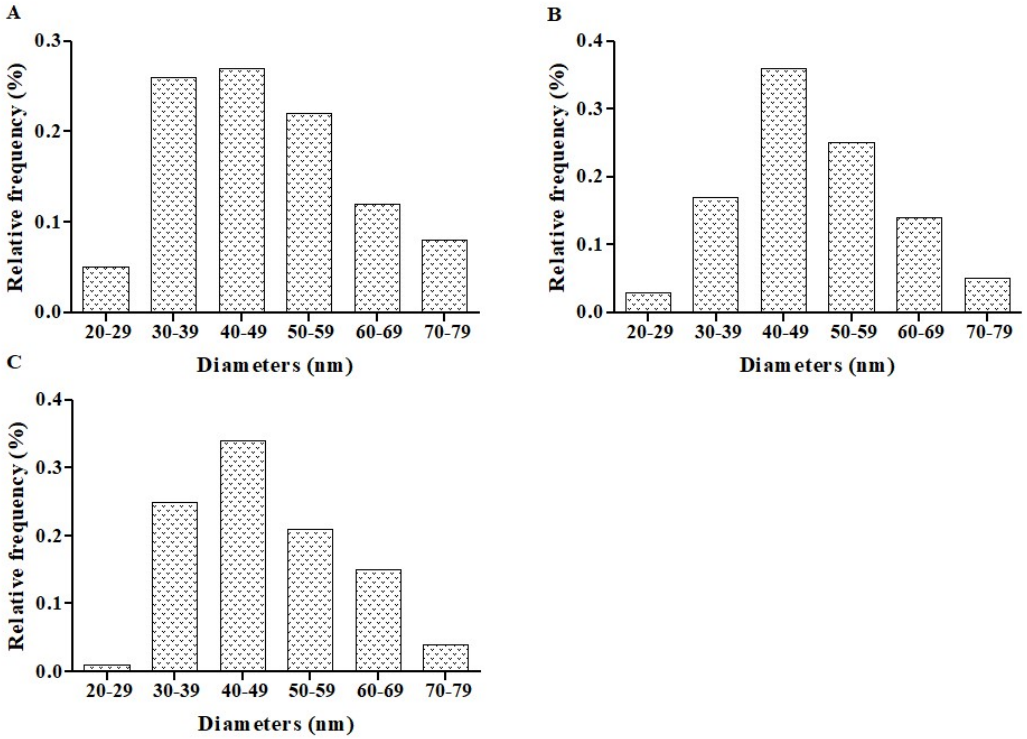

Fig. S3. Correlations between the BMP-SA-biotin-Nb2 based ELISA and LC-MS/MS for 3-PBA in urine samples.