



CORRECTION Open Access

## Correction: A smallest 6 kda metalloprotease, mini-matrilysin, in living world: a revolutionary conserved zinc-dependent proteolytic domain- helix-loop-helix catalytic zinc binding domain (ZBD)

Wei-Hsuan Yu<sup>1\*</sup>, Po-Tsang Huang<sup>1,2</sup>, Kuo-Long Lou<sup>1,2,3,4</sup>, Shuan-Su C Yu<sup>1</sup> and Chen Lin<sup>1</sup>

There is a major mistake in the order of Figure 5 to Figure 7 in [1]. We replace the Figure 5 and Figure 6 in [1] with new corrected Figures of Figure 1 and Figure 2. We also replace the correct original order of Figure 6 and Figure 7 in [1] with Figure 2 and Figure 3 in this correction. Sorry for the inconveniences!

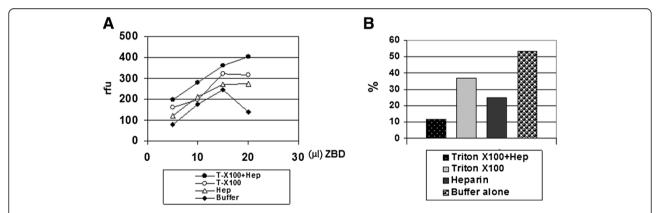
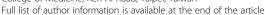


Figure 1 Combination of 0.05% Triton and 0.2 mg/ml heparin give the optimal refolding activities to cleave the synthetic coumarin-labelled peptide substrate, Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH2. Panel A: Shows the refolded ZBD activities increased in dose-dependent manner. In the absence of the refolding accessory factors, Triton X-100 and heparin. The significant reduced activities in the high-concentration (> 100 μg/ml) was observed which could be due to autolysis. Panel B: Under 37°C incubation for 18 hours, Triton X-100 and heparin can prevent the activity loss.(All experiments were repeated at two batch of purification and refolding preparation and data collected from a representative experiments).

<sup>&</sup>lt;sup>1</sup>Institute of Biochemistry and Molecular Biology, National Taiwan University, College of Medicine, Ren-Ai Road, Taipei, Taiwan





<sup>\*</sup> Correspondence: whyu2004@ntu.edu.tw

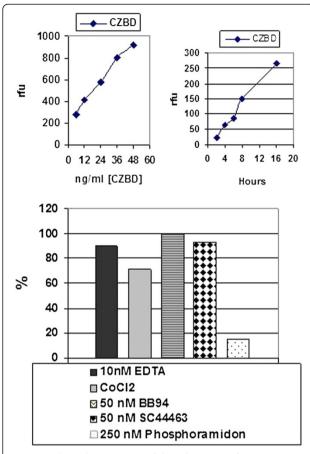


Figure 2 The polymerization of the 6 kDa ZBD of MMP-7 in pentomer and Octmer demonstrate the significant proteolytic activities towards to the CM-transferrin substrate in CM-transferrin zymographic assay. 300 µg of craboxylmethylated transferrin (CM-transferrin) was co-polymerized with SDS-PAGE as a substrate gel for analyzing the MMP-7 activities in situ.

## Author details

<sup>1</sup>Institute of Biochemistry and Molecular Biology, National Taiwan University, College of Medicine, Ren-Ai Road, Taipei, Taiwan. <sup>2</sup>Graduate Institute of Oral Biology, National Taiwan University, College of Medicine, Ren-Ai Road, Taipei, Taiwan. <sup>3</sup>NTU-DRCP Lectures and Core for Membrane Proteins, Center for Biotechnology, National Taiwan University, Chang Sing Street, Taipei, Taiwan. <sup>4</sup>Institute of Biotechnology, National Taiwan University, Chang Sing Street, Taipei, Taiwan.

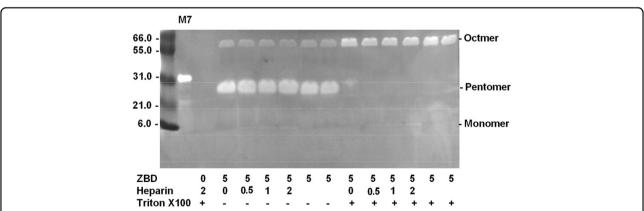
Received: 17 September 2012 Accepted: 24 September 2012 Published: 6 October 2012

## Reference

 Yu WH, Huang PT, Lou KL, Yu SS, Lin C: A Smallest 6 kDa Metalloprotease, Mini-matrilysin, in Living World: a Revolutionary Conserved Zinc-Dependent Proteolytic Domain- Helix-Loop-Helix Catalytic Zinc Binding Domain (ZBD). J Biomed Sci 2012, 19:54.

## doi:10.1186/1423-0127-19-87

Cite this article as: Yu et al.: Correction: A smallest 6 kda metalloprotease, mini-matrilysin, in living world: a revolutionary conserved zinc-dependent proteolytic domain- helix-loop-helix catalytic zinc binding domain (ZBD). Journal of Biomedical Science 2012 19:87.



**Figure 3 Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH2 assay for characterization of refolded ZBD.** *Panel* **A**: Under the optimized conditions, the refolded ZBD shows increasing enzymatic activity in dose-dependent manner. No significant activity loss was found in the high concentration situation. *Panel* **B**: approximately 6 ng/ml refolded ZBD shows the increasing activity during the time course study and no significant activity loss during overnight incubation. *Panel* **C**: Recombinant ZBD can be inhibited by 10 nM EDTA, 1 mM CoCl2 and synthetic inhibitors, 50 nM BB94 & SC44463 and CoCl2, but not b6 250 nM Phosphoramidon. (All experiments were repeated at two batch of purification and refolding preparation and data collected from a representative experiments).