

## Highly Selective Detection of $\text{Cu}^{2+}$ Utilizing Specific Binding between Cu-demetallated Superoxide Dismutase 1 and $\text{Cu}^{2+}$ ion via Surface Plasmon Resonance Spectroscopy

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### ESI

**Fig. S1 Selectivity test in mixed metal ion solutions:** SPR reflectivity values at the fixed angle of the lower inflection point in each SPR curve were obtained by averaging each of several values in their stabilized region.  $\Delta$ Reflectivity means the difference of SPR reflectivity between before and after exposure to each mixture. ('Mixture #1' solution is a mixture of 10 mM equivalent  $\text{Mg}^{2+}$ ,  $\text{Ni}^{2+}$ ,  $\text{Mn}^{2+}$  and  $\text{Zn}^{2+}$  solution. 'Mixture #2' contained the same concentration and equivalent  $\text{Cu}^{2+}$  solution.)

