## **Supporting information**

Au NCs-enhanced chemiluminescence from NaHSO<sub>3</sub>-H<sub>2</sub>O<sub>2</sub> and its

## analytical application

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**Fig.S1.** A. UV–vis absorption spectra of BSA-protected gold nanoclusters. B. photoemission ( $\lambda_{ex}$  =470 nm) spectra of aqueous solution of BSA-Au NCs.

ΔI	Trypsin (ug/ml)		
5424	44.47719689		

Table S1	The rep	oroducibi	lity of	this	method
			,		



5707	49.72376715
5493	45.75639600
5313	42.41935484
5457	45.08898776
5393	43.90248424
5337	42.86429366
5655	48.75973304
5691	49.42714127
5443	44.82944012
RSD	2.7%

Table S2 The stability of this method

	$\Delta I$	Trypsin (ug/mL)	Average(ug/mL)
The first day	5494	45.77493511	
	5410	44.21764924	44.78000247
	5417	44.34742306	-
	5483	45.57100482	
	5611	47.94401187	46.53503893
The second day	5511	46.09010011	-
	5453	45.01483129	
	5544	46.70189099	45.97886541
The third day	5518	46.21987393	-
	5523	46.31256952	
	5431	44.60697071	-
The fourth day	5523	46.31256952	45.74403658
	5432	44.62550983	
	5436	44.6996663	-
The fifth day	5601	47.75862069	44.6681498
	5373	43.53170189	
	5487	45.64516129	-
The sixth day	5568	47.14682981	45.441231
	5498	45.84909158	
	5433	44.64404894	]
The seventh day	5364	43.36484983	44.61933012



**Fig.S2.** Kinetic curves of CL systems: NaHSO<sub>3</sub>-H<sub>2</sub>O<sub>2</sub> (black line); NaHSO<sub>3</sub>-H<sub>2</sub>O<sub>2</sub>-Au NCs (red line); NaHSO<sub>3</sub>-H<sub>2</sub>O<sub>2</sub>-BSA (blue line).