

**Electronic Supporting Information for**  
**A solid-state Sb/Sb<sub>2</sub>O<sub>3</sub> biosensor for the in-situ measurement of**  
**extracellular acidification associated with the multidrug resistant**  
**phenotype in the breast cancer cells**

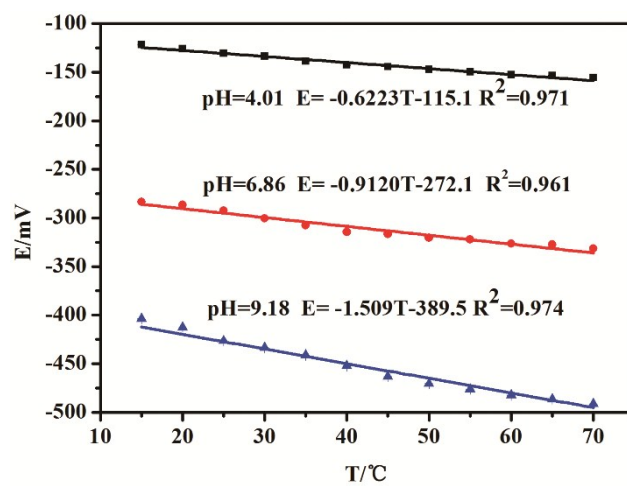
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**Fig. S1** The relationship between the potential and temperature of the electrode in three standard buffers (pH=4.01, 6.86, 9.18).

**Table S1** Results of pH measurements after the interference substance was added with pH=2.00, 4.01 buffers (n=3).

solution	2.00 buffer +KCl	2.00 Buffer +Na <sub>2</sub> SO <sub>4</sub>	2.00 buffer +KNO <sub>3</sub>	2.00 buffer +Ca(NO <sub>3</sub> ) <sub>2</sub>	4.01 buffer +KCl	4.01 buffer +Na <sub>2</sub> SO <sub>4</sub>	4.01 buffer +KNO <sub>3</sub>	4.01buffer +Ca(NO <sub>3</sub> ) <sub>2</sub>
SSO	2.10±0.02	2.22±0.02	2.06±0.01	*	4.05±0.02	3.89±0.01	4.03±0.01	3.69±0.02
glass electrode	2.05±0.01	2.14±0.01	2.03±0.01	1.87±0.01	4.00±0.01	3.88±0.01	3.98±0.01	3.67±0.01
ΔpH	0.05±0.03	0.08±0.03	0.03±0.02	*	0.05±0.03	0.01±0.02	0.05±0.02	0.02±0.03

\* represents that the pH value of the solution was not measured by the fabricated SSO electrode due to the linear relationship between the potential and pH in the range of 2-12.