Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information

Point-of-Care Monitoring of Intracellular Glutathione and Serum Triglycerides Levels Using A Versatile Personal Glucose Meter

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Supplementary details

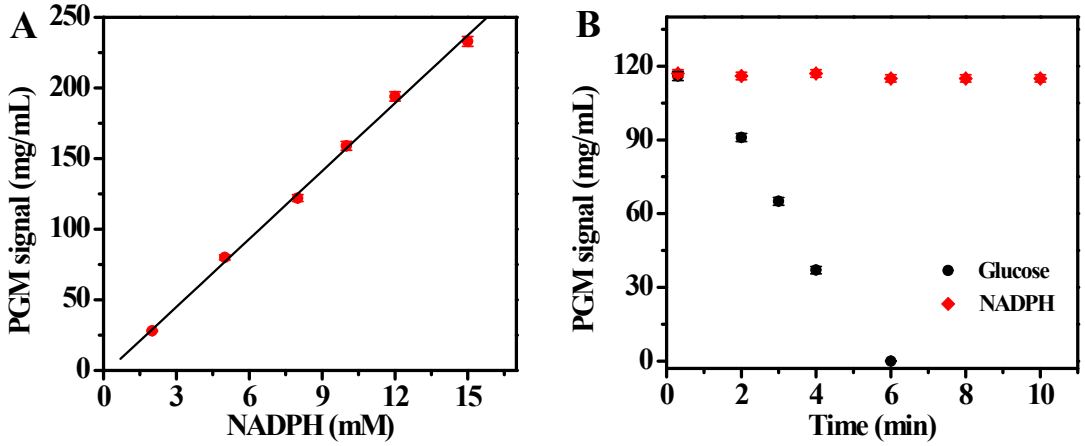

Fig. S1. (A) Calibration for the NADPH-dependent PGM signal; (B) Time-dependent glucose and NADPH readout in PGM after the adding of hexokinase and ATP.

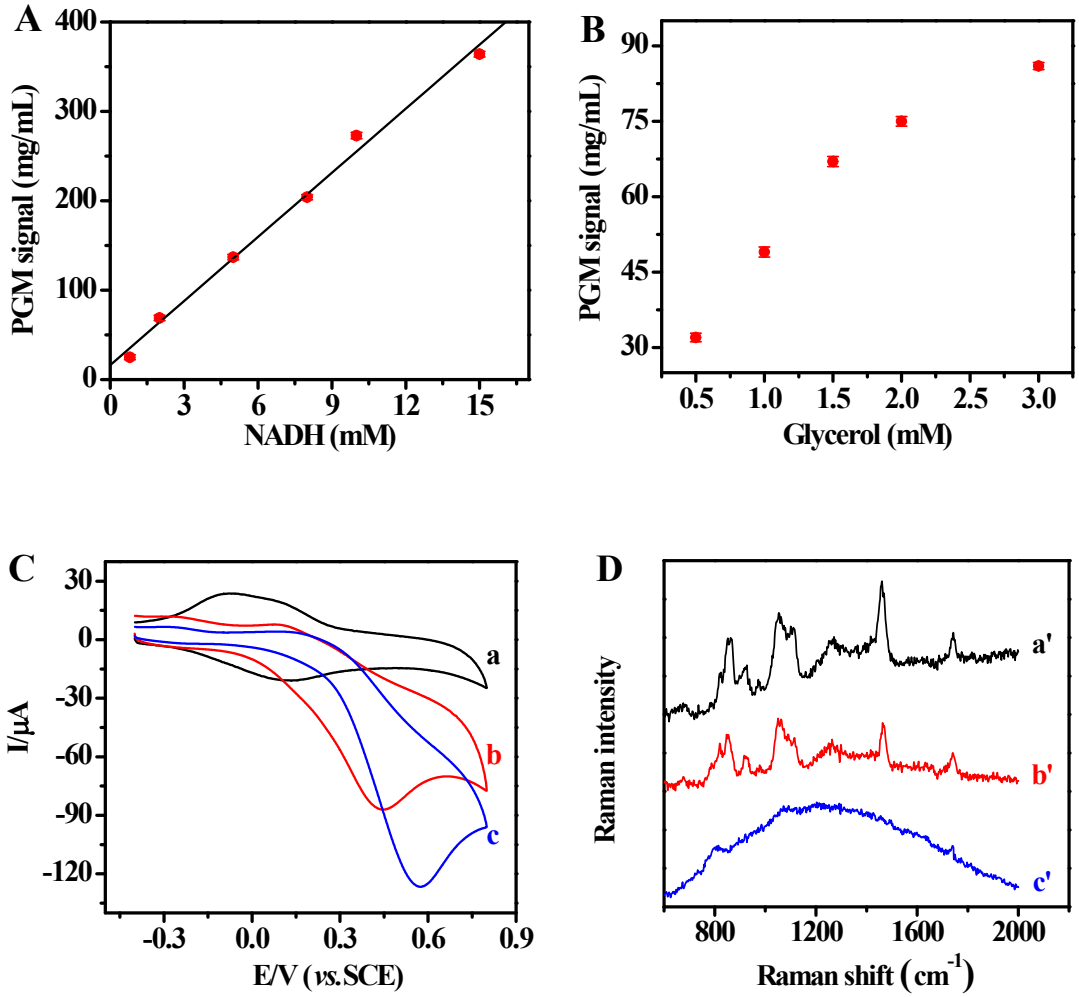

Fig. S2. (A) Calibration for the NADPH-dependent PGM signal. (B) NADH production by GDH-catalyzed hydrolysis of glycerol measured by a PGM. (C) Cyclic voltammograms of ferrocene modified screen-printed carbon electrode in the (a) absence and presence of (b) 3.0 mM and (c) 5.0 mM TG at the scan rate of 50 mV s^{-1}. (D) Raman spectra of (a′) TG emulsion, (b′) after addition of lipase, and (c′) GDH into the TG emulsion.

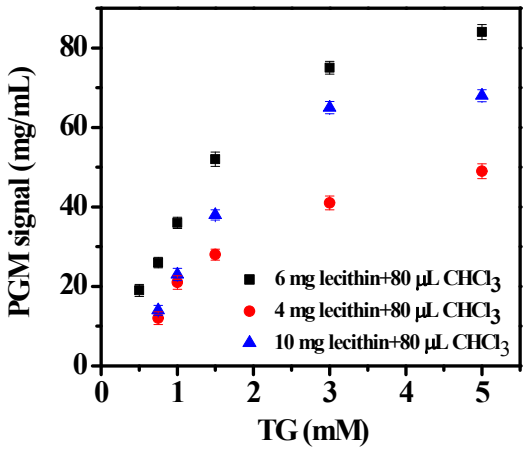

Fig. S3. Effects of the PGM signal with the enhancement of the concentration of lecithin.

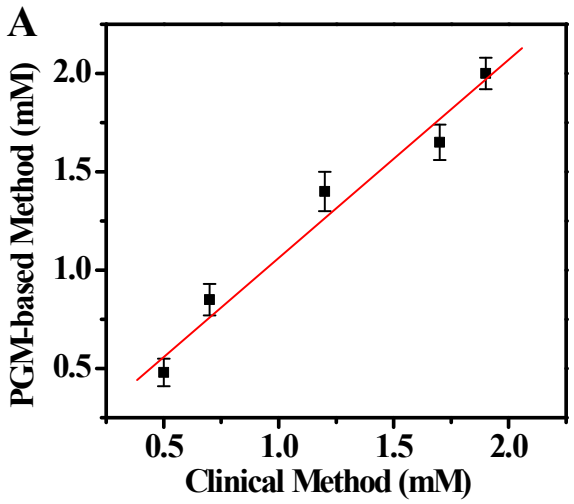

Fig. S4 Comparison of the PGM-based method with the standard clinical method for detection of low concentration TG in human serum.

Table S1 Determination of GSH in human serum.

Sample	Found in sample by PGM (mM)	Found in sample by HPLC (mM)	Added (mM)	Total found (mM)	Recovery (%)	RSD (%,n=3)
1	0.967	0.981	0.2	1.158	95.5	3.7
			0.4	1.382	103.7	2.8
2	1.022	1.016	0.2	1.225	101.5	3.1
			0.4	1.407	96.2	3.5