



**SUPPLEMENTARY FIG. S5. NaHS and Na<sub>2</sub>S solutions lead to PTEN oxidation *via* polysulfides also at pH 7.4.** (A) The PTEN activity assay was performed in PTEN assay buffer adjusted to pH 7.4. Activity was measured following the addition of either buffer (untreated) or 10  $\mu$ M of NaHS and Na<sub>2</sub>S solutions prepared in degassed 200 mM Tris-HCl, pH 7.4 (injection indicated by *arrow*). Curves represent means of triplicate wells. (A') Quantification of the effect of these agents on the PTEN activity (expressed as PTEN inhibition) as described for Figure 2B. (A'') Sulfane sulfur (S<sup>0</sup>) levels of the same NaHS and Na<sub>2</sub>S solutions used in (A), as determined by cyanolysis. Bars denote means  $\pm$  range of duplicate wells. (A''') H<sub>2</sub>S concentrations of these NaHS and Na<sub>2</sub>S solutions as determined by their absorbance at 230 nm. S<sup>0</sup> and H<sub>2</sub>S concentrations are given for 120 mM stock solutions.