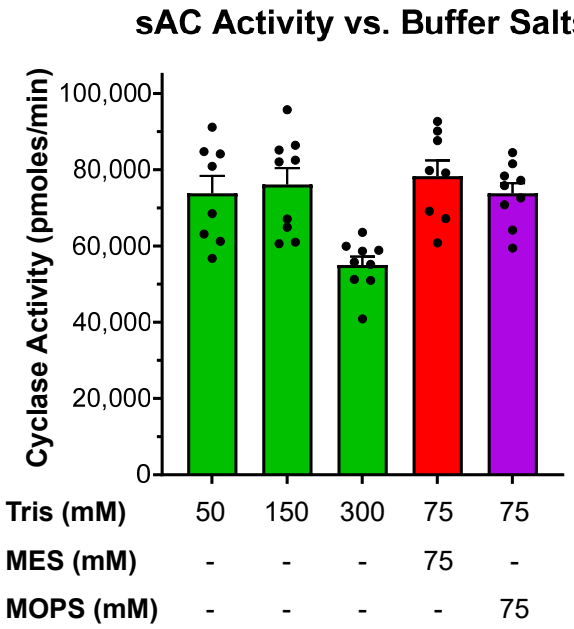


Supplemental Figure S1. Effects of buffer salts on sAC cyclase activity. *In vitro* cyclase activity assay of recombinant sAC_t in the presence of 10 mM of Mn^{+2}, 2 mM of ATP, and indicated concentrations of respective buffers. All conditions were adjusted to pH 7.5 prior to measuring cyclase activity. Mn^{+2} was used in this experiment for full catalytic activity. 300 mM of Tris decreased cyclase activity, either from excess Tris salt or counterion; therefore, subsequent experiments did not use higher than 150 mM of Tris. Bars represent standard errors of the means of triplicate determinations of experiments repeated three times; values were normalized to activity in the presence of 50 mM of Tris (pH 7.5).