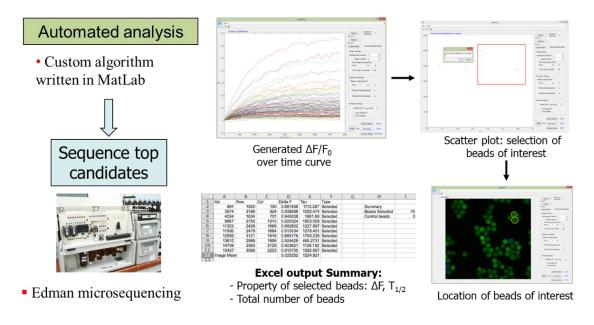
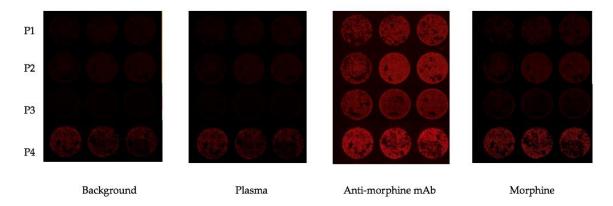
## Supplemental Figure S1

## Automated analysis of illuminating library beads



## Supplemental Figure S2



Binding confirmation of resynthesized illuminating peptides on beads. Peptide-beads were immobilized and tested in a 48-well plate. The incubation time of beads with plasma, anti-morphine mAb and free morphine is 20 minutes. Background picture was taken in PBS. Plasma picture was taken in 10% human plasma in PBS. Anti-morphine MAb concentration was 3.5 nM and morphine concentration was 0.35  $\mu$ M.