Supporting Information

A FRET-based fluorescent approach for labetalol sensing using calix[6]arene functionalized MnO$_2$@graphene as receptor

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Fig. S1 The chemical structure of SCX6.

Fig. S2 The chemical structure of labetalol.
**Fig. S3** The photograph of SCX6–MnO$_2$@RGO aqueous dispersion (1.0 mg mL$^{-1}$) after being stored for 6 months.

**Fig. S4** Job’s continuous variation plot of the SCX6/labetalol complex.
Fig. S5 Fluorescence spectra of 10 µM R6G in the absence and presence of 1 µg mL\(^{-1}\) MnO\(_2\), RGO, MnO\(_2\)@RGO, and SCX6–MnO\(_2\)@RGO.

Fig. S6 (A) The effect of increasing concentrations of MnO\(_2\)@RGO (concentrations ranging from 0 to 6 µg mL\(^{-1}\)) on the fluorescence intensity of R6G (\(\lambda_{ex} = 490\) nm). R6G concentration was 10 µM. (B) Fluorescence spectra of the MnO\(_2\)@RGO•R6G complex via different concentrations of labetalol. R6G and MnO\(_2\)@RGO concentrations were 10 µM and 6 µg mL\(^{-1}\), respectively. The combined solution was mixed by vortexing well for 5 min and then tested.