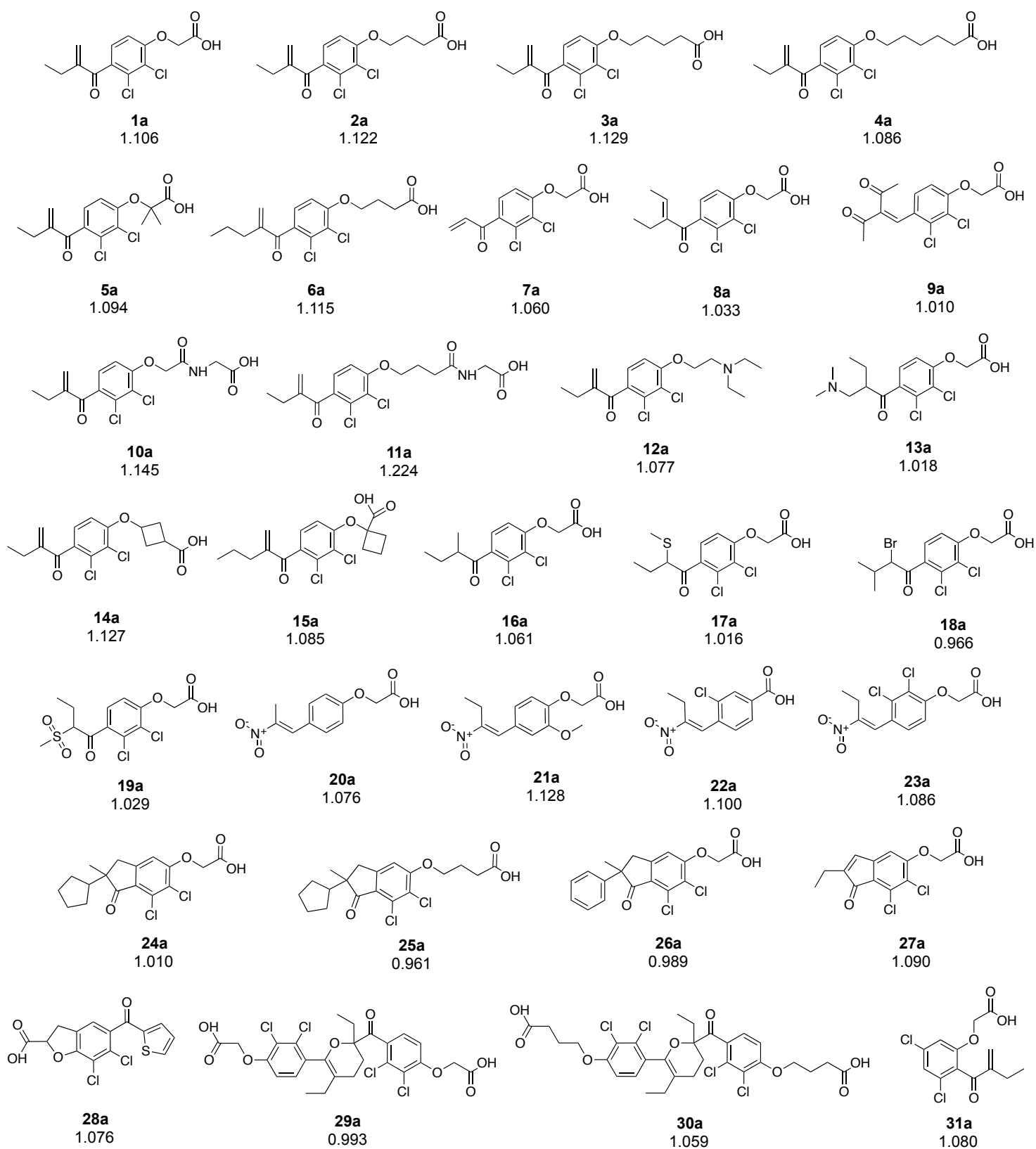
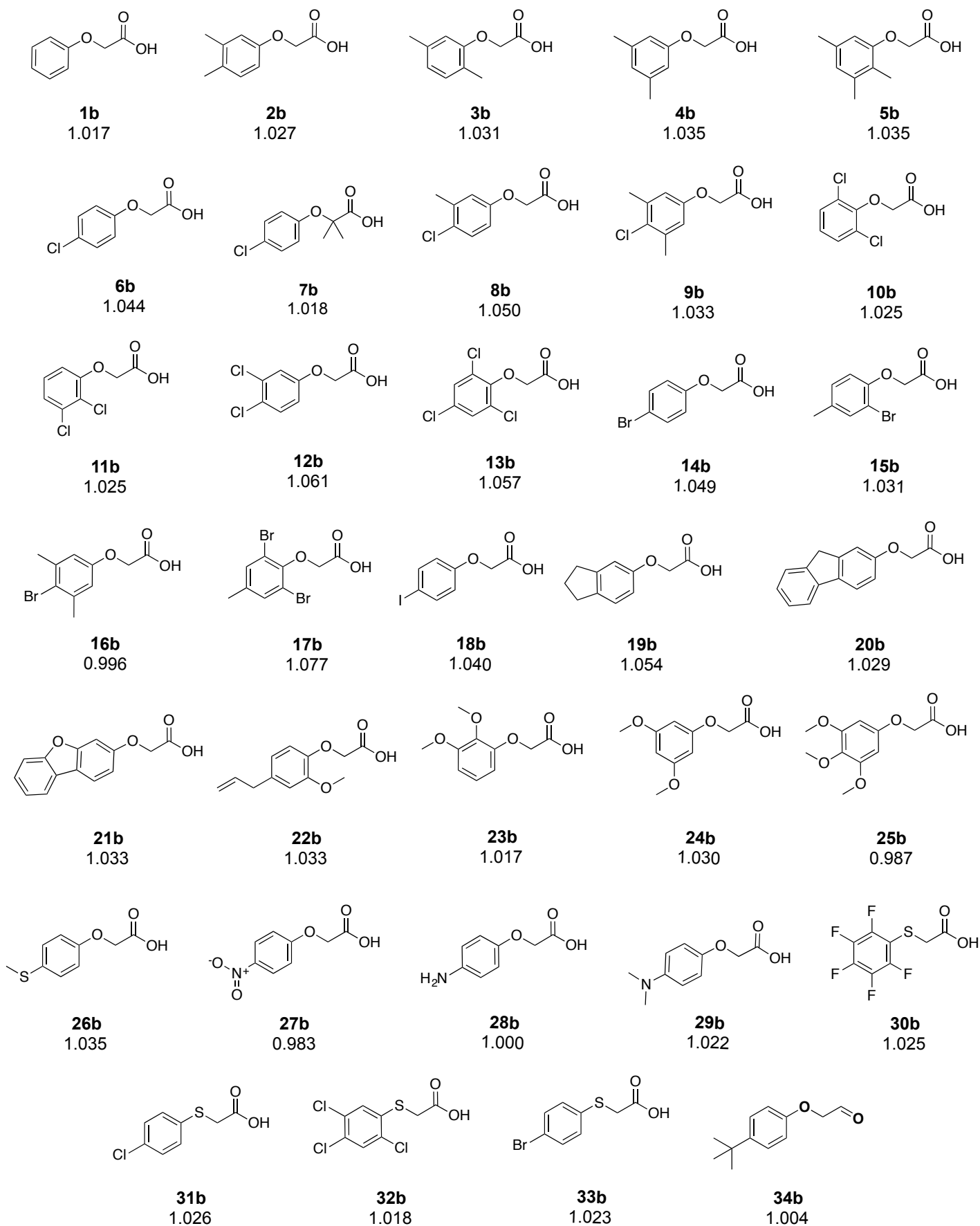


## Ethacrynic acid



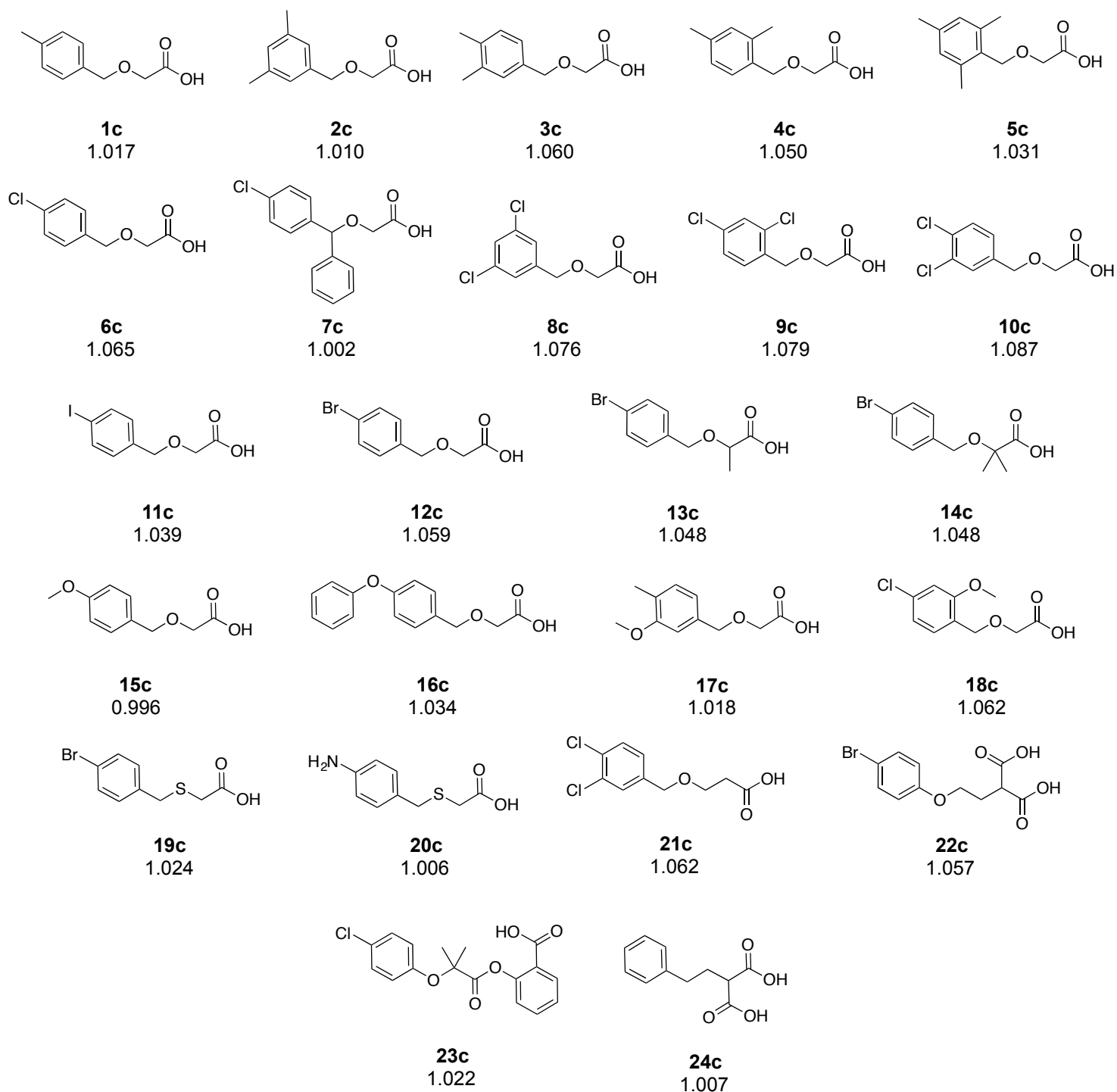
**Supplementary Fig. 1.** Chemical structures of ethacrynic acid analogs and their anti-sickling activity (HbS ratio ranging from 0.961-1.224).

## Benzyloxyacetic acid



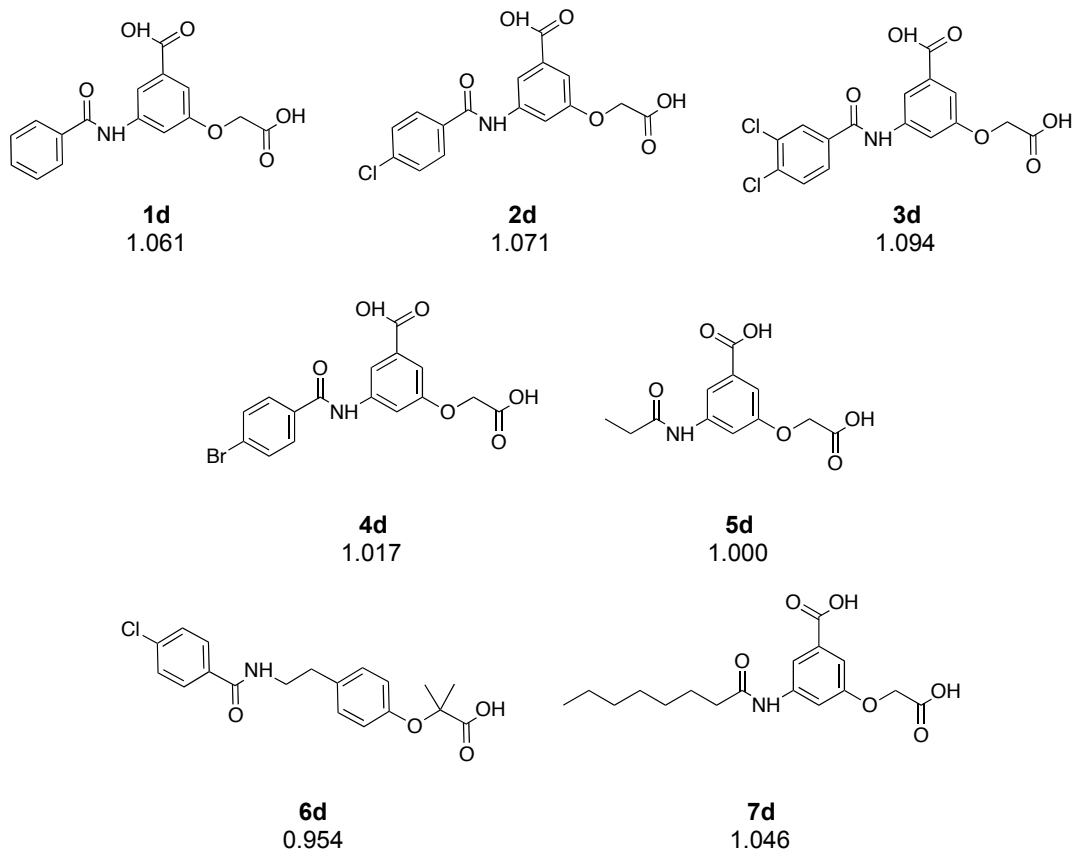
**Supplementary Fig. 2.** Chemical structures of benzyloxyacetic acid analogs and their anti-sickling activity (HbS ratio ranging from 0.983-1.077).

## Phenoxyacetic acid



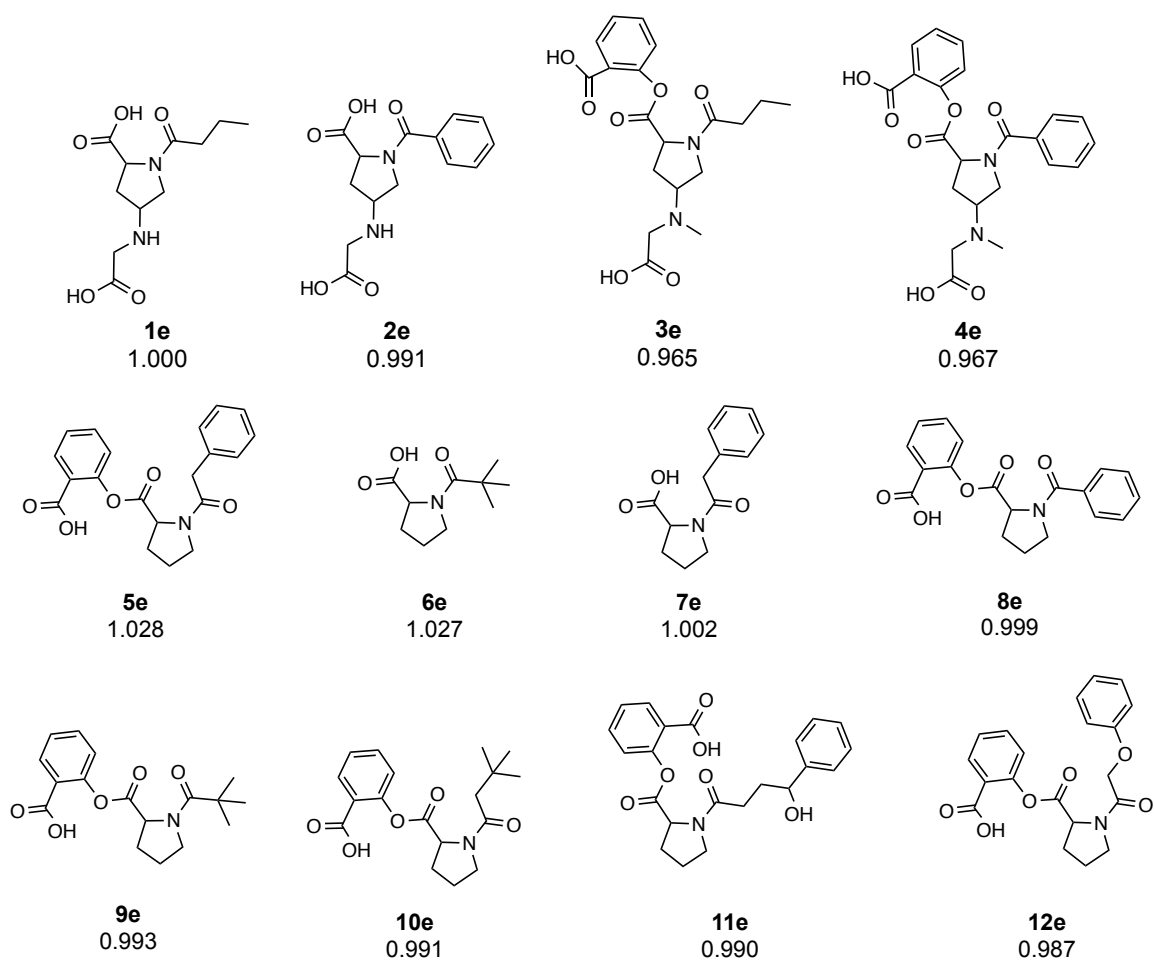
**Supplementary Fig. 3.** Chemical structures of phenoxyacetic acid analogs and their anti-sickling activity (HbS ratio ranging from 0.996 to 1.087).

## Aromatic amide



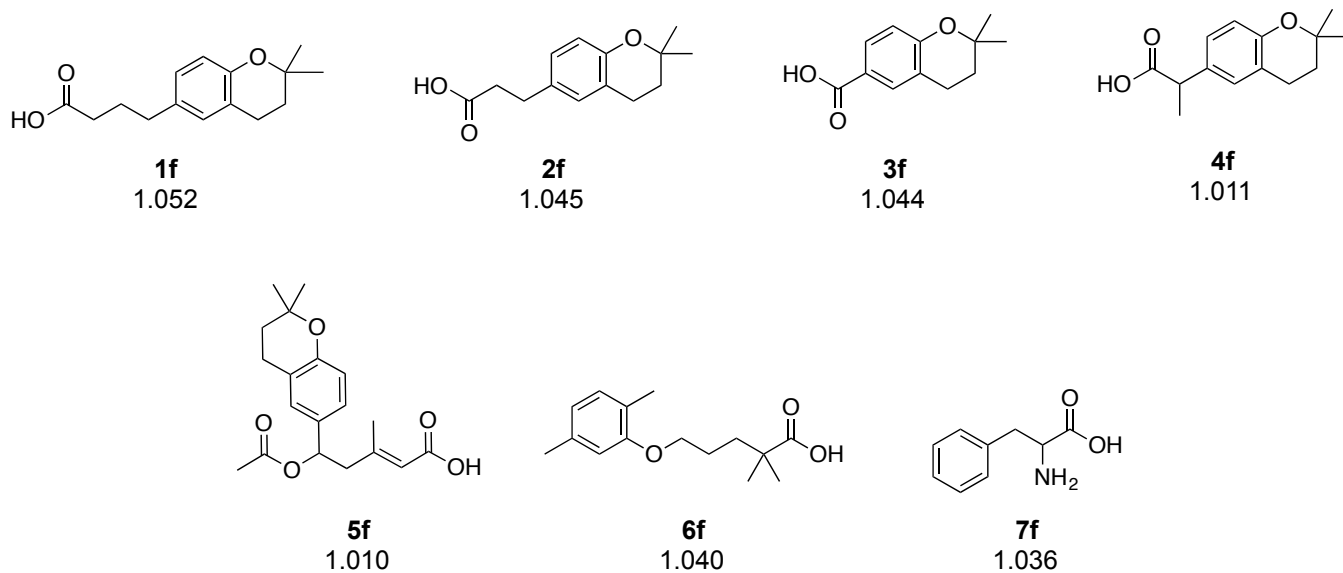
**Supplementary Fig. 4.** Chemical structures of aromatic amide analogs and their anti-sickling activity (HbS ratio ranging from 0.954 to 1.094).

## Proline



**Supplementary Fig. 5.** Chemical structures of proline analogs and their anti-sickling activity (HbS ratio ranging from 0.967 to 1.028).

## 2,2 - dimethylchroman



**Supplementary Fig. 6.** Chemical structures of 2,2-dimethylchroman analogs and their anti-sickling activity (HbS ratio ranging from 1.010 to 1.052).