# Supporting Information

## Novel 8-Substituted Coumarins That Selectively Inhibit Human Carbonic Anhydrase IX and XII

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Table S1. Yields obtained for compounds 2-13

![Chemical Structure]

| R Groups | % Yield |
|----------|---------|
| 2        | 63      |
| 3        | 32      |
| 4        | 47      |
| 5        | 26      |
| 6        | 50      |
| 7        | 53      |
| 8        | 64      |
| 9        | 67      |
| 10       | 50      |
| 11       | 60      |
| 12       | 76      |
| 13       | 60      |
CAI
CAII
CAXII
CAIX

MAPLCPSPWLPLLIPAPAPGLTVQLLLSLLLLVPVHPQRLPRMQEDSLPGL

CAI
CAII
CAXII
CAIX

MAPLCPSPWLPLLIPAPAPGLTVQLLLSLLLLVPVHPQRLPRMQEDSLPGL

CAI
CAII
CAXII
CAIX

MAPLCPSPWLPLLIPAPAPGLTVQLLLSLLLLVPVHPQRLPRMQEDSLPGL

Figure S1. Alignment between hCA I, hCA II, hCA IX and hCA XII. Conserved residues are reported in bold.
Compound 1

$^1$H NMR
Compound 1
$^{13}$C NMR
Compound 2

$^1$H NMR
Compound 2
$^{13}$C NMR
Compound 3
$^1$H NMR
Compound 3
$^{13}$C NMR
Compound 4

$^1$H NMR
Compound 4

$^{13}$C NMR
Compound 5

$^{13}\text{C NMR}$
Compound 6

$^1$H NMR
Compound 6

$^{13}$C NMR
Compound 7
$^1$H NMR
Compound 7

$^{13}$C NMR
Compound 8
$^1$H NMR
Compound 8
$^{13}$C NMR
Compound 9
$^1$H NMR
Compound 9

$^{13}$C NMR
Compound 10
$^1$H NMR
Compound 10

$^{13}$C NMR
Compound 11
$^1$H NMR
Compound 11

$^{13}\text{C NMR}$
Compound 12
$^1$H NMR
Compound 12
$^{13}$C NMR
Compound 13

$^1$H NMR
Compound 13

$^{13}$C NMR