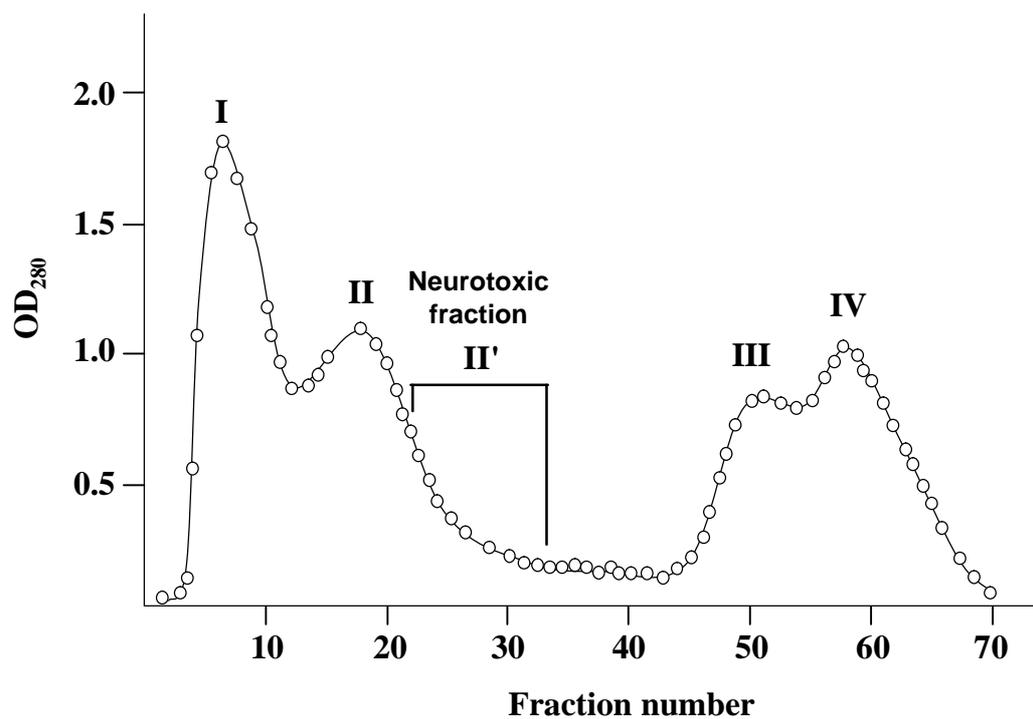
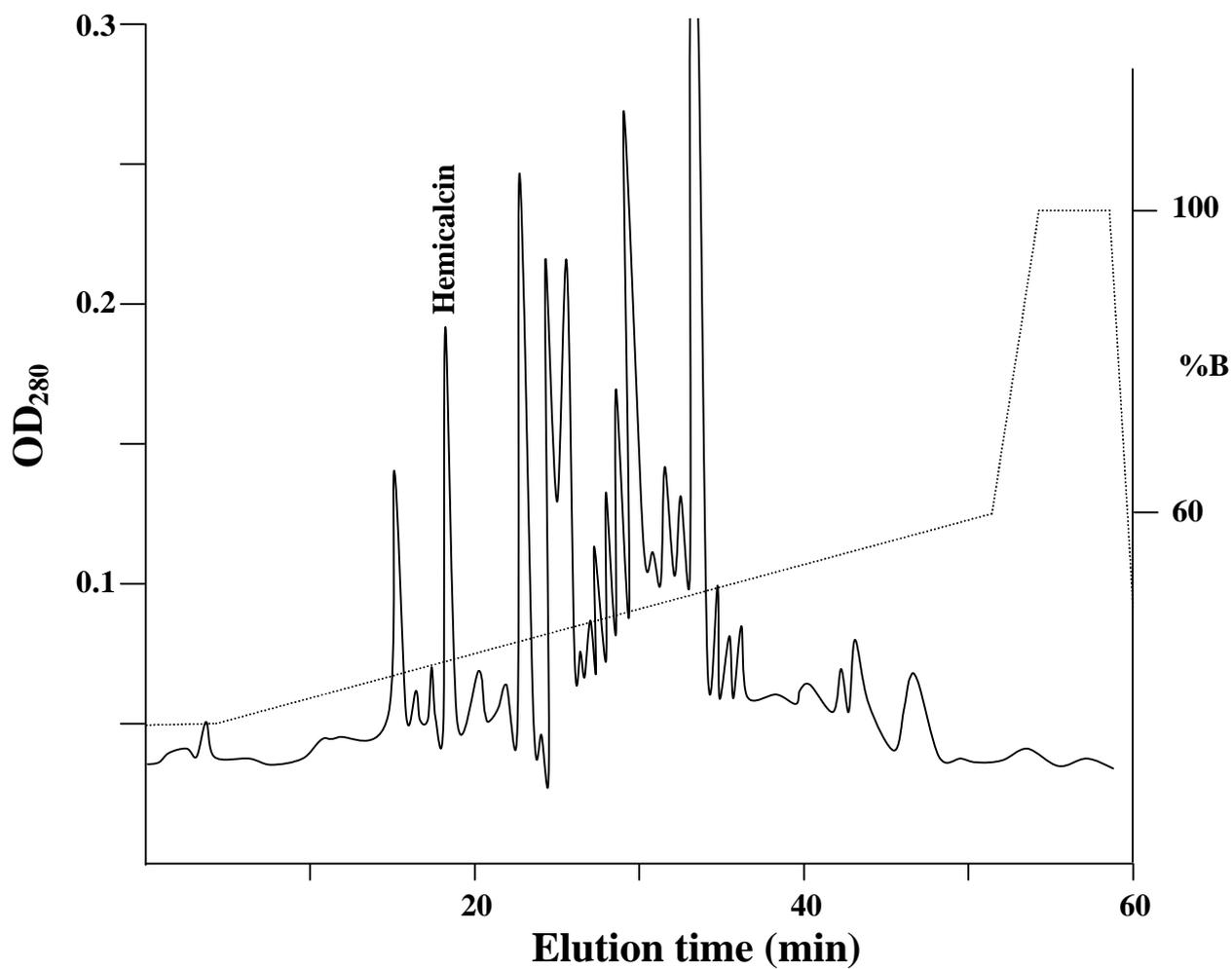


**A****B**

**A**

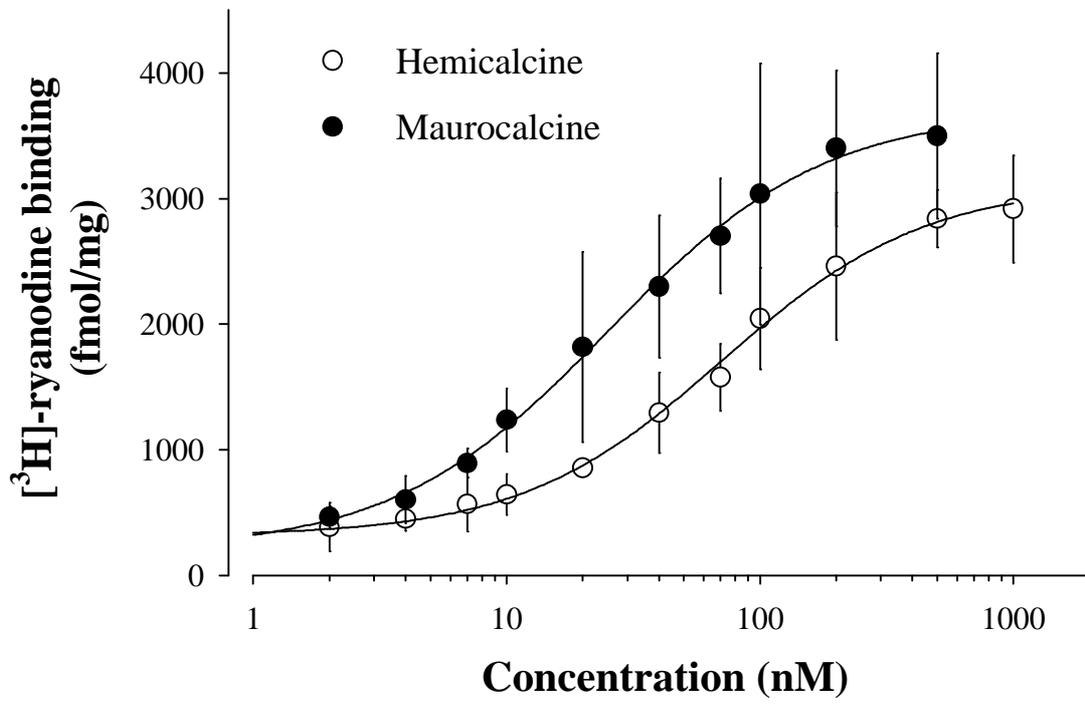
Variable amino acid residues

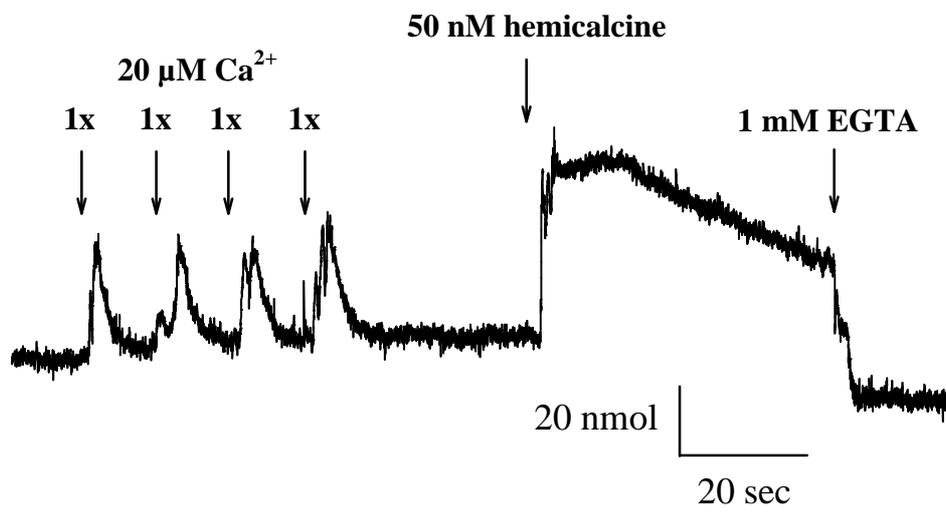
|               | 1                | 2 3 4                | 5                     | 6 7                              | Sequence identity (%) |                     |       |    |
|---------------|------------------|----------------------|-----------------------|----------------------------------|-----------------------|---------------------|-------|----|
|               | ↓                | ↓ ↓ ↓                | ↓                     | ↓ ↓                              |                       |                     |       |    |
| Hemicalcin    | GDC <sub>1</sub> | LPHLKLC <sub>2</sub> | KADKDC <sub>3</sub>   | C <sub>4</sub> SKKC <sub>5</sub> | KRRGTNP               | EKRC <sub>6</sub> R | 12/33 |    |
| Maurocalcine  | GDC <sub>1</sub> | LPHLKLC <sub>2</sub> | KENKDC <sub>3</sub>   | C <sub>4</sub> SKKC <sub>5</sub> | KRRGTNI               | EKRC <sub>6</sub> R | 12/33 | 91 |
| Imperatoxin A | GDC <sub>1</sub> | LPHLKRC <sub>2</sub> | KADNDC <sub>3</sub>   | C <sub>4</sub> GKKC <sub>5</sub> | KRRGTNA               | EKRC <sub>6</sub> R | 12/33 | 88 |
| Opicalcine 1  | GDC <sub>1</sub> | LPHLKRC <sub>2</sub> | KENNDKDC <sub>3</sub> | C <sub>4</sub> SKKC <sub>5</sub> | KRRGTNP               | EKRC <sub>6</sub> R | 12/33 | 88 |
| Opicalcine 2  | GDC <sub>1</sub> | LPHLKRC <sub>2</sub> | KENNDKDC <sub>3</sub> | C <sub>4</sub> SKKC <sub>5</sub> | KRRGANP               | EKRC <sub>6</sub> R | 12/33 | 85 |

Number of basic residues

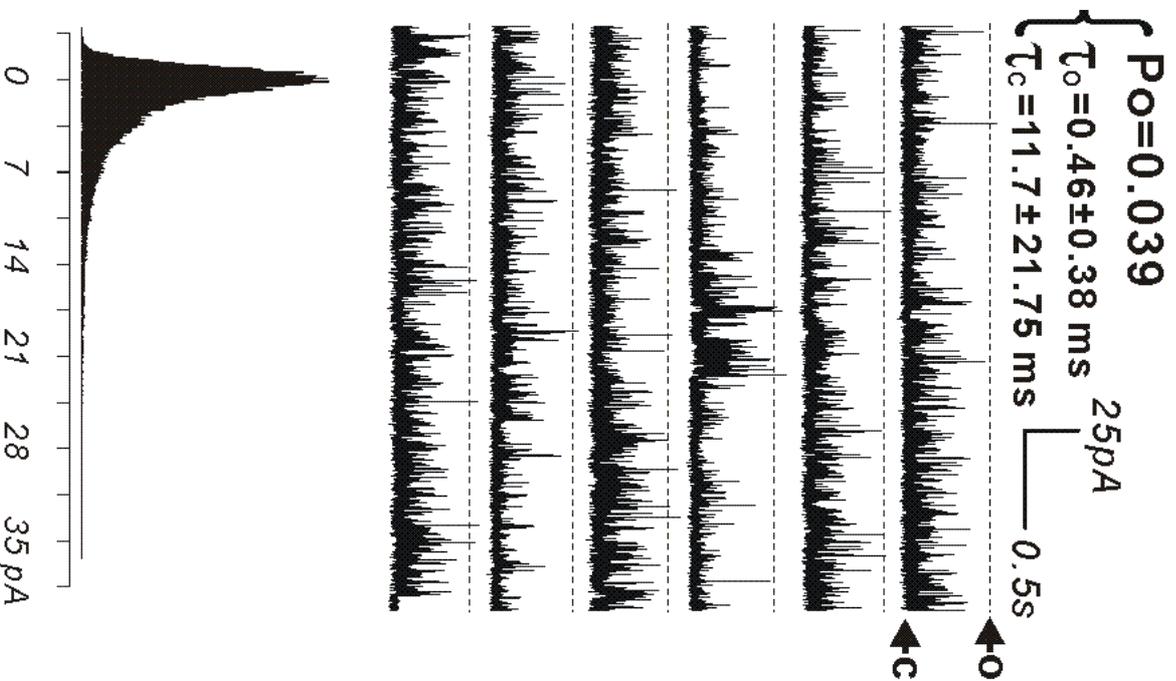
**B**

|            |       |          |          |        |         |       |
|------------|-------|----------|----------|--------|---------|-------|
| Hemicalcin | GDC   | LPHLKLC  | KADKDC   | CSKCK  | KRRGTNP | EKRCR |
| Peptide A  | EAESL | --TSAQKA | -K-AEERK | -RRKMS | ----    | RGL   |

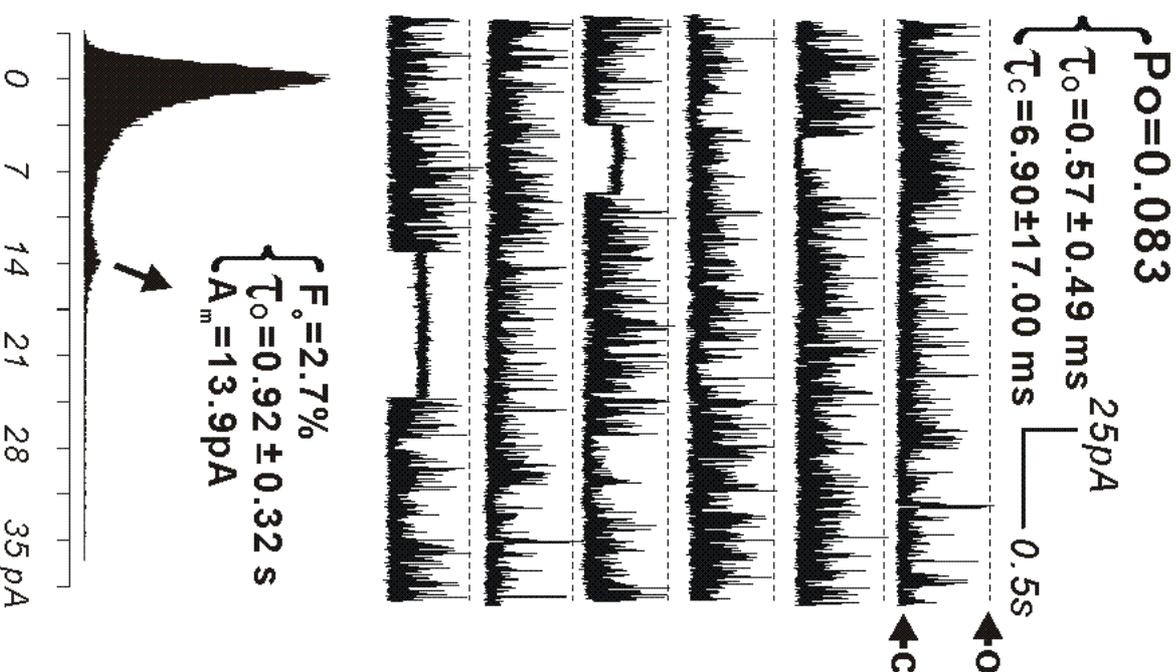




### **A** Control

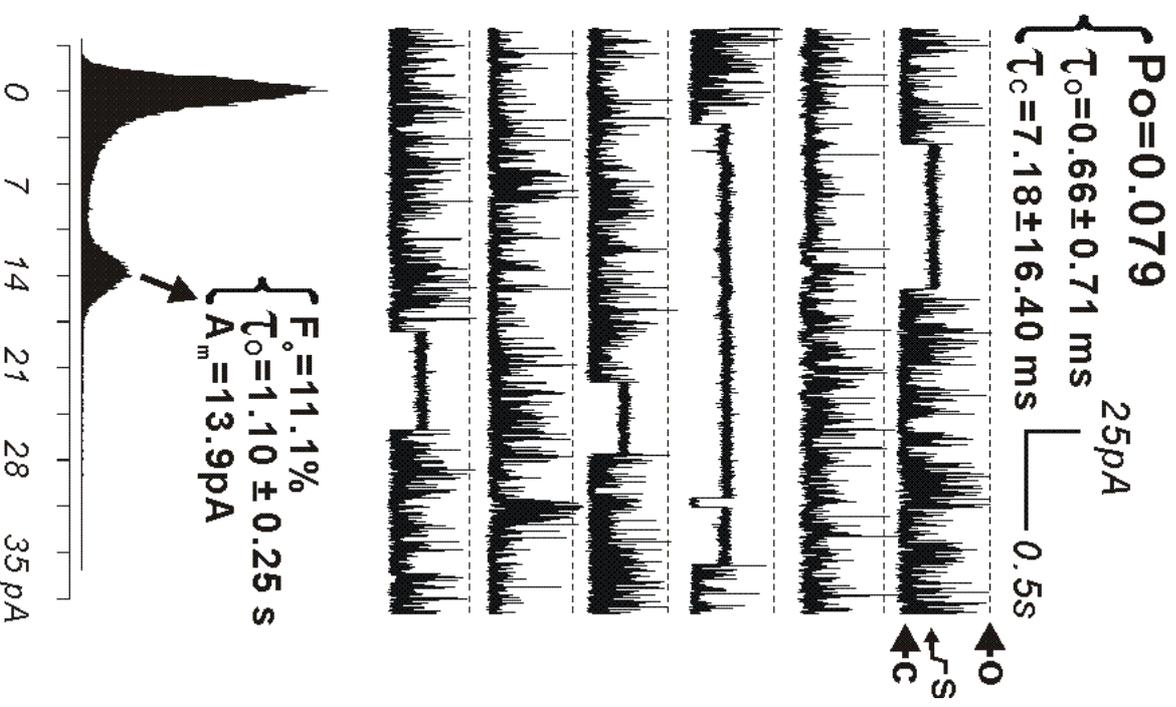


### **B** Emicalcine (175nM)



$F_o = 2.7\%$   
 $T_o = 0.92 \pm 0.32$  s  
 $A_m = 13.9$  pA

### **C** Emicalcine (350nM)



$F_o = 11.1\%$   
 $T_o = 1.10 \pm 0.25$  s  
 $A_m = 13.9$  pA

