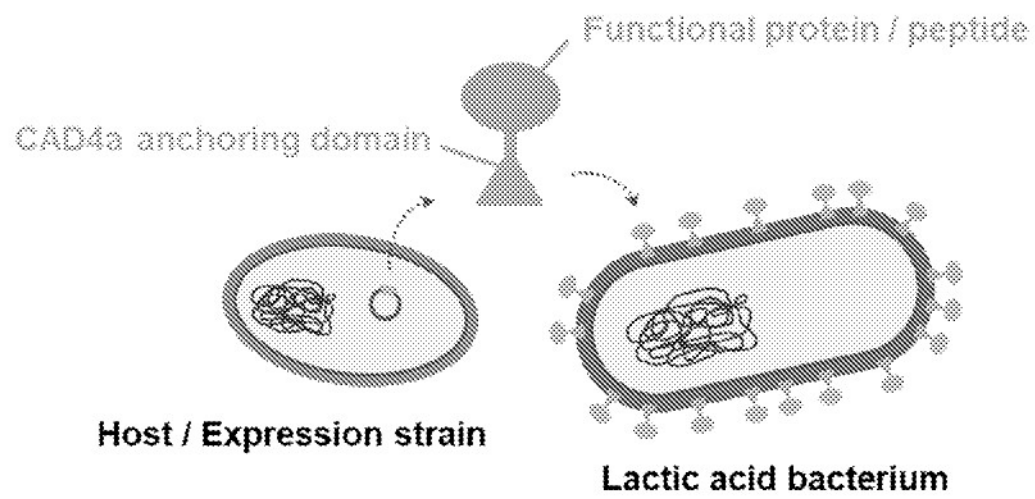
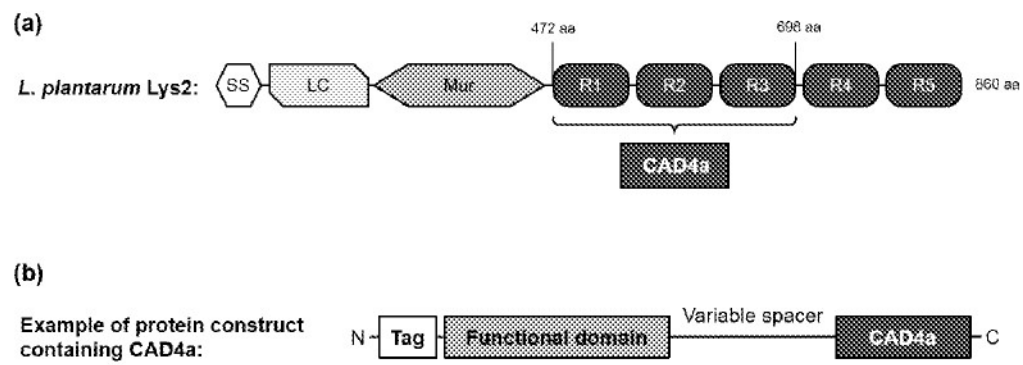


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**Figure 1**

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**Figure 2**

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**Sequence 1: *L. plantarum* Lys2 autolysin (SEQ ID NO: 1)**

MNFKSQNPIDASQSERFKLYKSGKLWLVLVAGLTFFSFLGGSVLNDTNVHADATNATTTSSSAASTASSAS  
 VATSSAASDETTKATSVSSSAATQVTSAAATTKTTSQAATASSSAATSQSTSTASSSTSQATKTASSAAT  
 STSATATSQATSVASSTATTTQVSHTASSTAASAASSTATVKAVKAASSTVSSAATTATKATAKVAAVA  
 YTAATTSSTDVWTIGDITRPRVDVVDVASYQSTMTQSDFNKLKAAGVKTVIVKSTEGTDYTNPAALNQA  
 KMANKAGLNVDFYHYATFSTADAAKSEATNMAGFLVKNNVSTKVLLFADMEDSSSYSVNATANLNAFWS  
 TLDSFGYKNGHYTSNSYLYRDAVVKTGQSRVWRAQYPYTPSANNLWNTNDGAWQFSDTALLPSGSDY  
 TGYIDVSDIDYNGLTEDSAGTNTFVTTTSSNDTTTSEVTTDTSATNTNSTSSSTTKKASGWTFTKNTAIK  
 SAASDSAKTGTYSKGNRVYYNAEITTNGETWLRVLSYSGSEHFVKIAAAKTTTKPAASTSKTVTKNE  
 TGYKFTKTTAIKGSVSDSAKTLGTYKGDVYYNAKVTKNGETWLRVLSYSGAQHYVKISGAATSTTT  
 TKPATSSSKTVTKAETGTYKFTGTTAIKGSVNDSAKTLGTYKGDVYYNAKVTKNQTLWLRVLSYSGA  
 QHYVKISGAATTTTSSKSTATASAKTVAQSGTYKFAKTTAIKSSASDAASTVGTYKGNVTNNAKVT  
 TNGQTLWLRVTSYSGAQHYVKVSGGAATTTSSASKTTAAAGTYTFKTTTNIRTAASLNASVVGQYSAGE  
 SVYYIGTVSADGYQWLKYLNSNGAYHYVAKIG

**Sequence 2: R1 of Lys2 CWT (SEQ ID NO: 2)**

SGWTFTKNTAIKSAASDSAKTGTYSKGNRVYYNAEITTNGETWLRVLSYSGSEHFVKIAAAKTTTK  
 PAASTSKTVTKNE

**Sequence 3: R2 of Lys2 CWT (SEQ ID NO: 3)**

TGTYKFTKTTAIKGSVSDSAKTLGTYKGDVYYNAKVTKNGETWLRVLSYSGAQHYVKISGAATSTTT  
 TKPATSSSKTVTKAE

**Sequence 4: R3 of Lys2 CWT (SEQ ID NO: 4)**

TGTYKFTGTTAIKGSVNDSAKTLGTYKGDVYYNAKVTKNQTLWLRVLSYSGAQHYVKISGAATTTT  
 SSKSTATASAKTVAQ

**Sequence 5: R4 of Lys2 CWT (SEQ ID NO: 5)**

SGTYKFAKTTAIKSSASDAASTVGTYKGNVTNNAKVTNGQTLWLRVTSYSGAQHYVKVSGGAATTTT  
 SSASKTTAAA

**Sequence 6: R5 of Lys2 CWT (SEQ ID NO: 6)**

GTYTFKTTTNIRTAASLNASVVGQYSAGESVYYIGTVSADGYQWLKYLNSNGAYHYVAKIG

**Figure 3 (continued)**

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**Sequence 7: CAD4a (SEQ ID NO: 7)**

SGWYTFKNTAIKSAASDSAKTGTYSKGNRVYNAEITTNGETWLRYSYSGSEHFVKIAAAKTTTK  
PAASTSKIVTKNETGTYKFTKTTAIKGSVSDSAKTLGTYKGDVYYNKVTKNGETWLRYSYSGAQH  
YVKISGAATSTTTKPATSSSKIVTKAETGTYKFTGTTAIKGSVNDSAKTLGTYKGDVYYNKVTKN  
GQTWLRYSYSGAQHYVKISG

**Sequence 8: Lys2 spacer. (SEQ ID NO: 8)**

VTTTSSNDTTTSEVTDTDSATTNTSTSSSTTKA

**Sequence 9: synthetic spacer. (SEQ ID NO: 9)**

(GGSGGGSGGGSG)<sub>x</sub>

**Sequence 10: SOD. (SEQ ID NO: 10)**

MAKGVAVLSSSEGVAGTILFTQEGDGPTTVTGNISGLKPGLHGFHVHALGDTTNGCMSTGPHFNPAGKE  
HGSPEDETRAGDLGNITVGDDGTACFTIVDKQIPLTGPHSIIGRAVVVHADPDDLKGKGHELSKSTGN  
AGGRIACGIIGLQG

**Figure 3 (end)**

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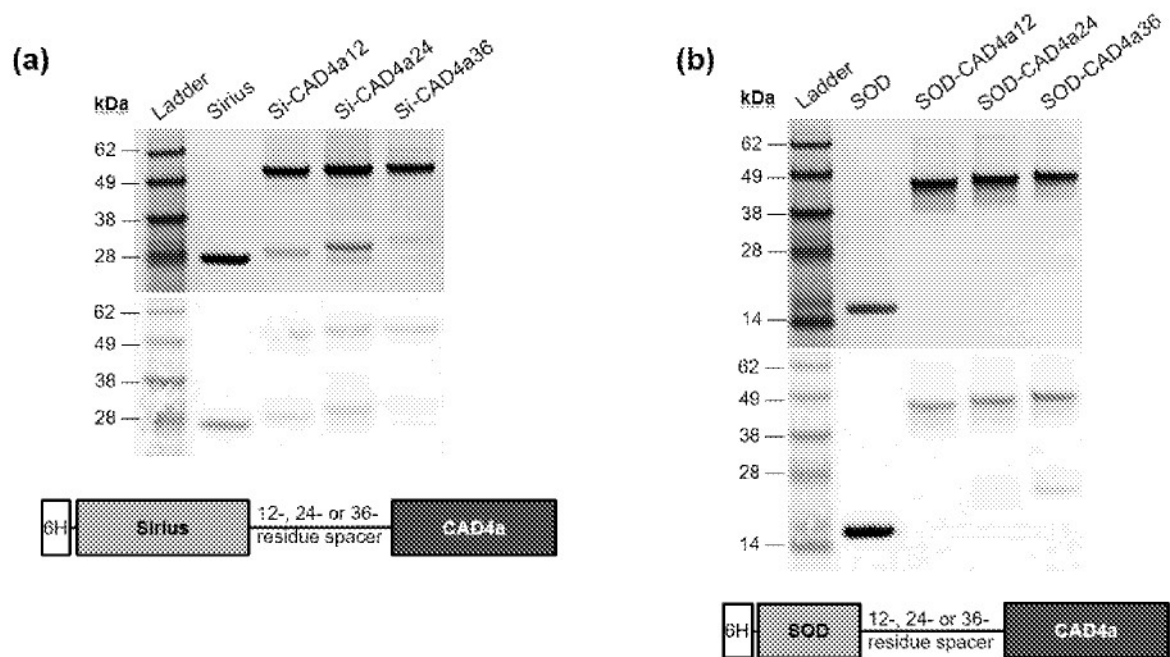
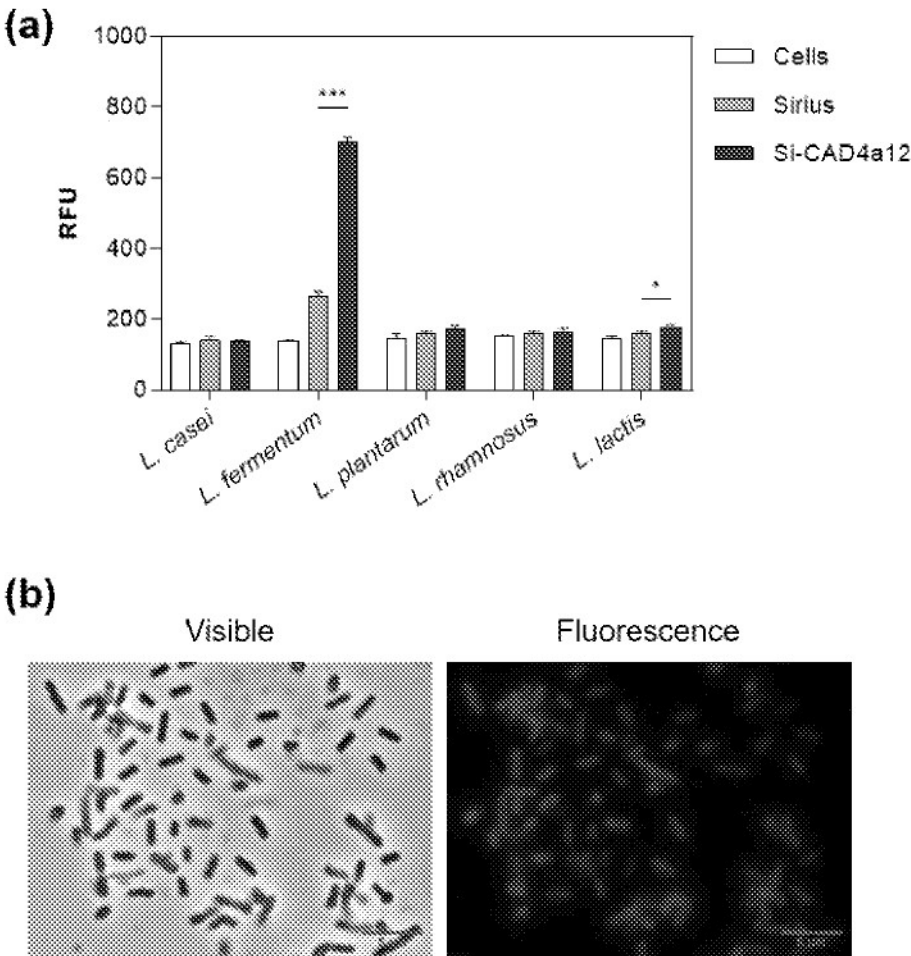


Figure 4



**Figure 5**

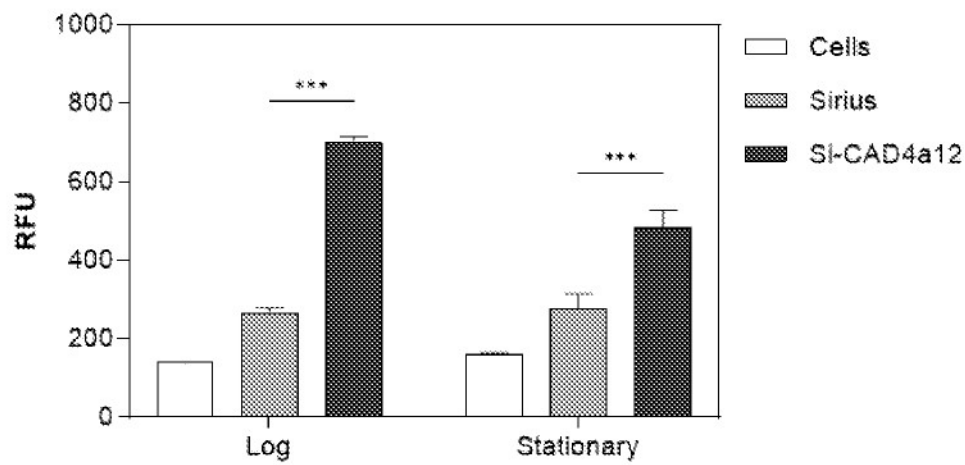
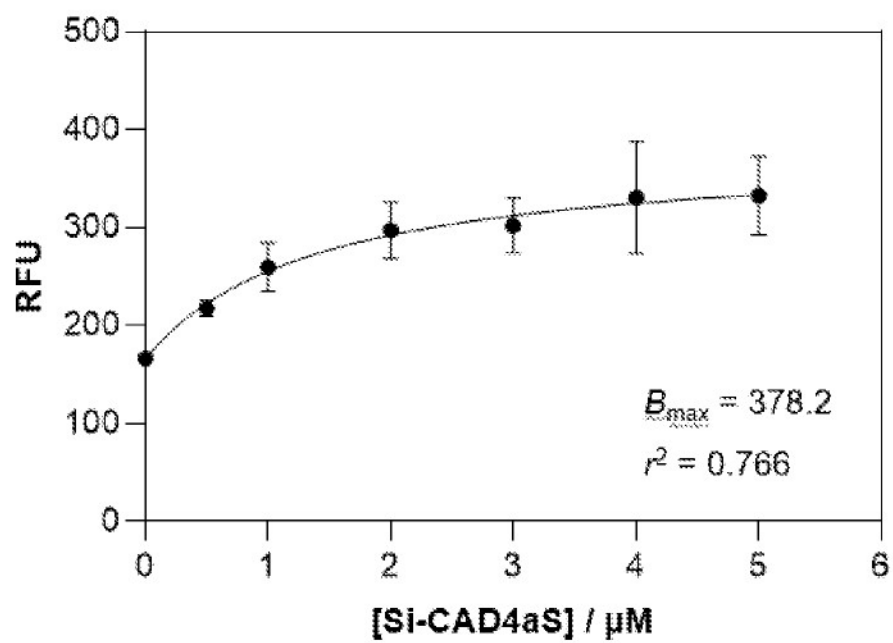
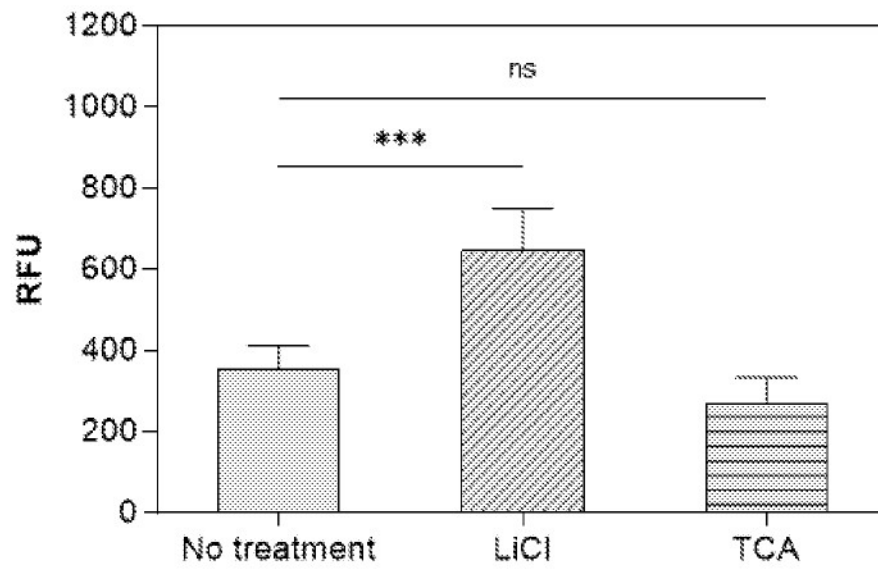


Figure 6

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**Figure 7**

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**Figure 8**

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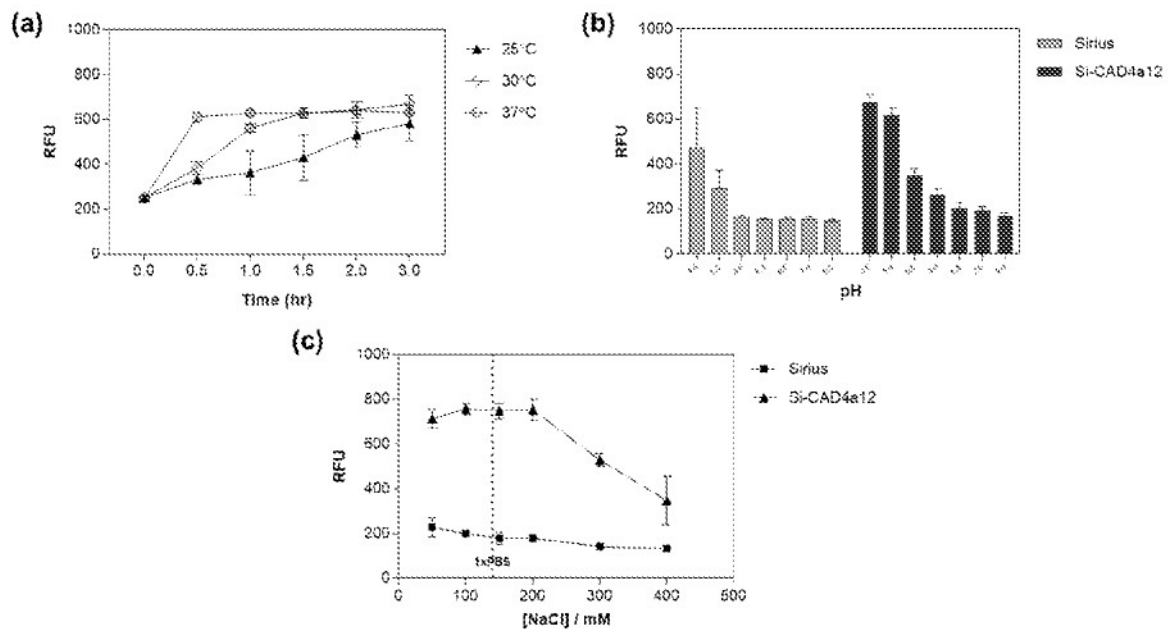


Figure 9

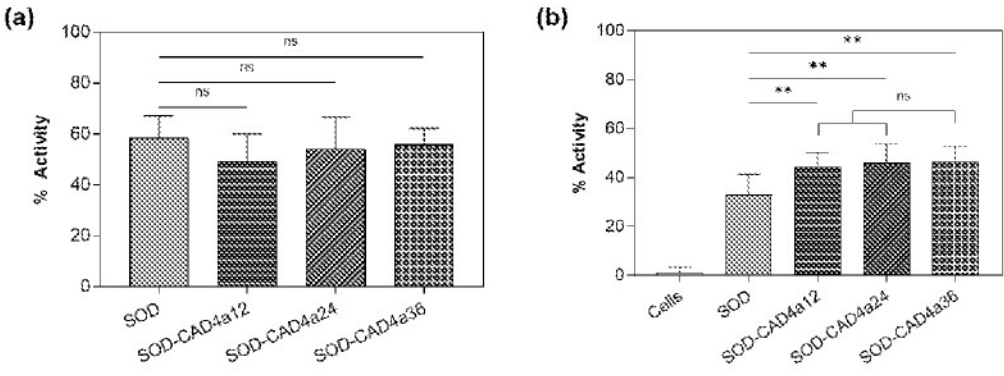
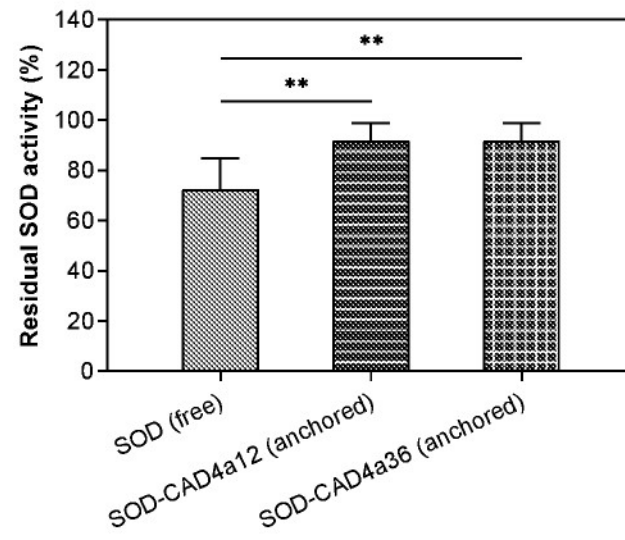


Figure 10

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**Figure 11**

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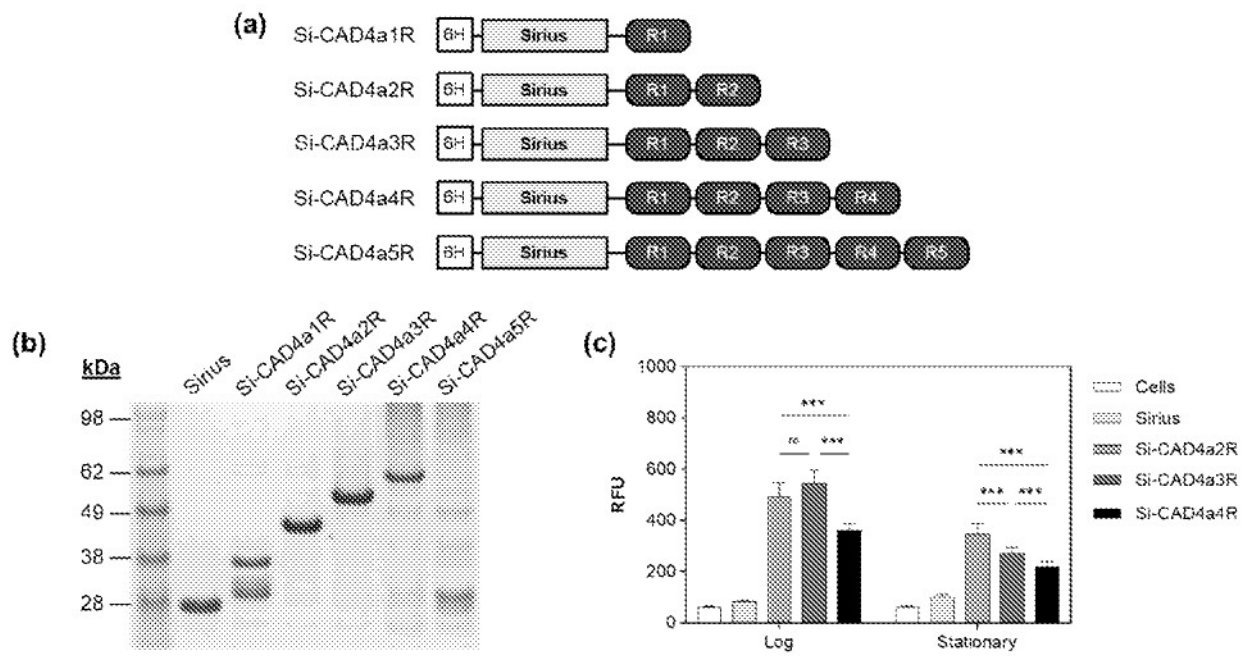


Figure 12