

## Elderberry Bark Lectins Evolved to Recognize Neu5Ac $\alpha$ 2,6Gal/GalNAc Sequence from a Gal/GalNAc Binding Lectin Through the Substitution of Amino-Acid Residues Critical for the Binding to Sialic Acid

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The publishers would like to apologize for erroneously printing figures 4 and 5 of this article in black and white. They are reproduced in colour below.

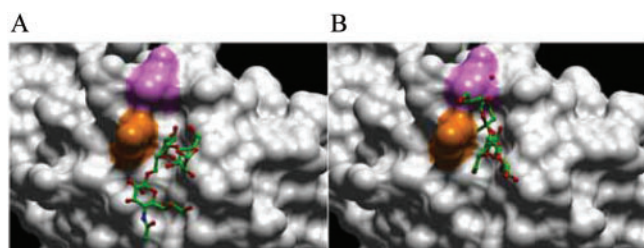
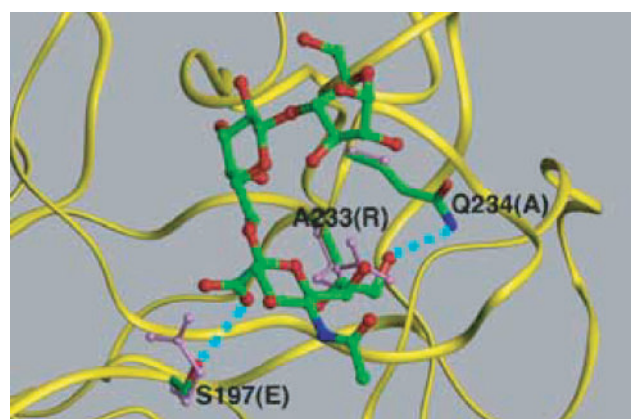


Fig. 4. Neu5Ac $\alpha$ 2,6lactose (A) and Neu5Ac $\alpha$ 2,3lactose (B) in the binding cleft of SSA. Connolly surface of SSA model is shown. Neu5Ac $\alpha$ 2,6lactose and Neu5Ac $\alpha$ 2,3lactose are displayed by coloured ball-and-stick in each. Y<sub>245</sub> and T<sub>248</sub>, which cause steric hindrance with the Neu5Ac $\alpha$ 2,3lactose, are shown in orange and pink, respectively.



	197	233	241
SSA B	. S D L I . . . . .	<b>A</b> Q H D I S L R K . .	
	199	236	244
Ricin B	. E T V V . . . . .	<b>R</b> A S D P S L K Q . .	

Fig. 5. Model of SSA and Neu5Ac $\alpha$ 2,6lactose complex. (A) Main chain of SSA is displayed by yellow tube model. Neu5Ac $\alpha$ 2,6lactose is shown by coloured ball-and-stick in each atom (carbon, green; nitrogen, blue; oxygen, red). Side chains of the amino-acid residues in SSA that are critical for the binding to sialic acid are indicated by coloured stick for each atom. Side chains of ricin corresponding to those of SSA are coloured by pink and their names are shown in parentheses. Cyan dotted lines indicate the hydrogen bonds. (B) Alignment of S<sub>197</sub> to K<sub>241</sub> of SSA B subunit to the consensus sequence of ricin B subunit. The bold character indicated the amino-acid residues subjected for the site-directed mutagenesis.