

## Electronic Supplementary Information

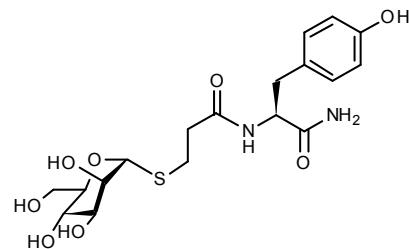
### Glycopeptide dendrimers: Tuning carbohydrate-lectin interactions with amino acids

Ronan Euzen<sup>\*a</sup> and Jean-Louis Reymond<sup>\*b</sup>

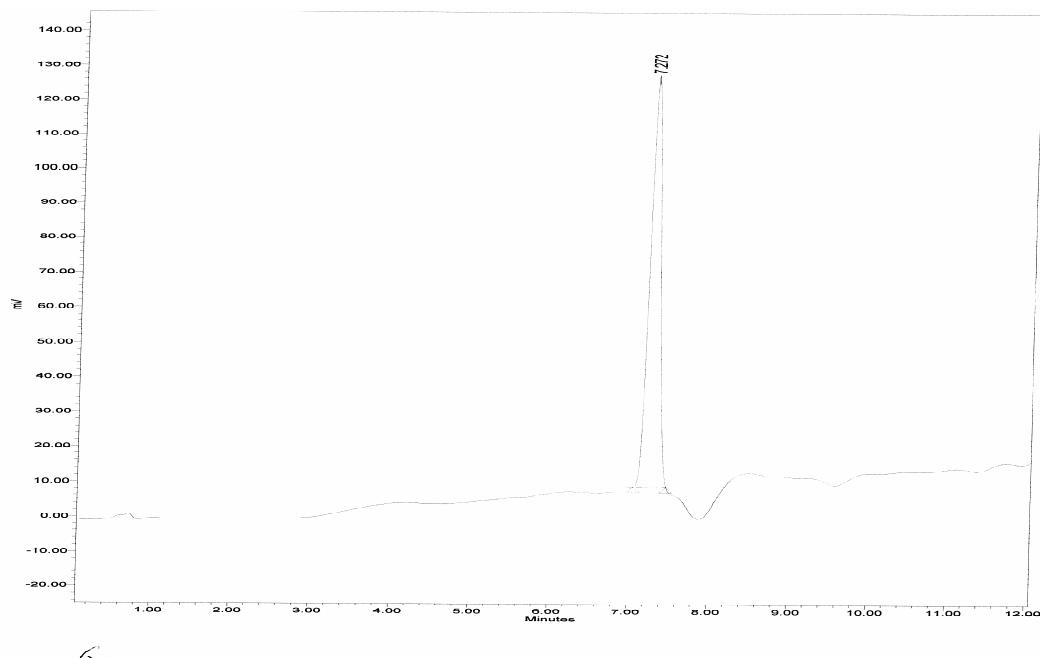
<sup>a</sup> *Technicians Training Laboratory, Institute of Chemical Sciences and Engineering (ISIC-GE), Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland. Fax: +41 21 693 35 50; Tel: +41 21 693 53 93; E-mail: ronan.euzen@epfl.ch.*

<sup>b</sup> *Department of Chemistry and Biochemistry, University of Bern, Freiestrasse 3, CH-3012 Bern, Switzerland. Fax: +41 31 631 80 57; Tel: +41 31 631 43 25; E-mail: jean-louis.reymond@ioc.unibe.ch.*

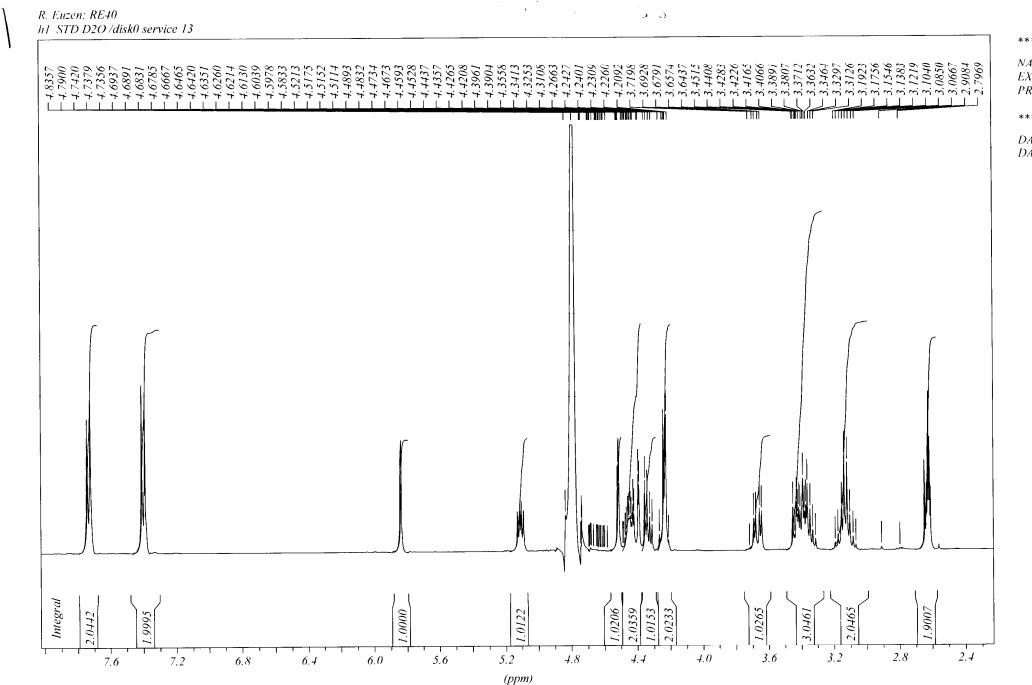
## Glycopeptide derivative G0



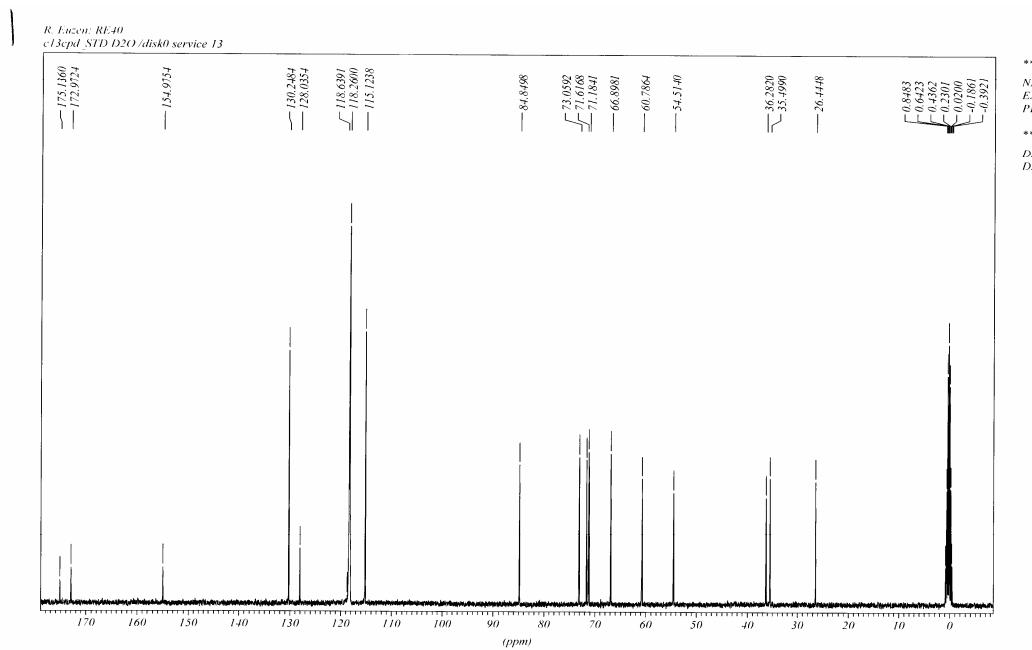
### HPLC analysis of the glycopeptide derivative G0



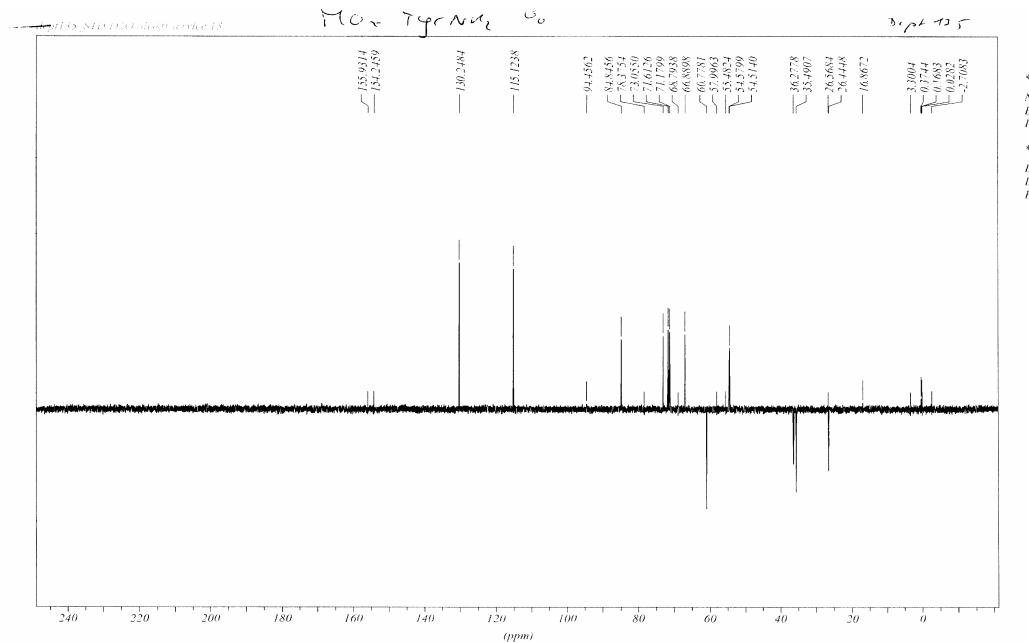
### <sup>1</sup>H NMR spectrum of the glycopeptide derivative G0



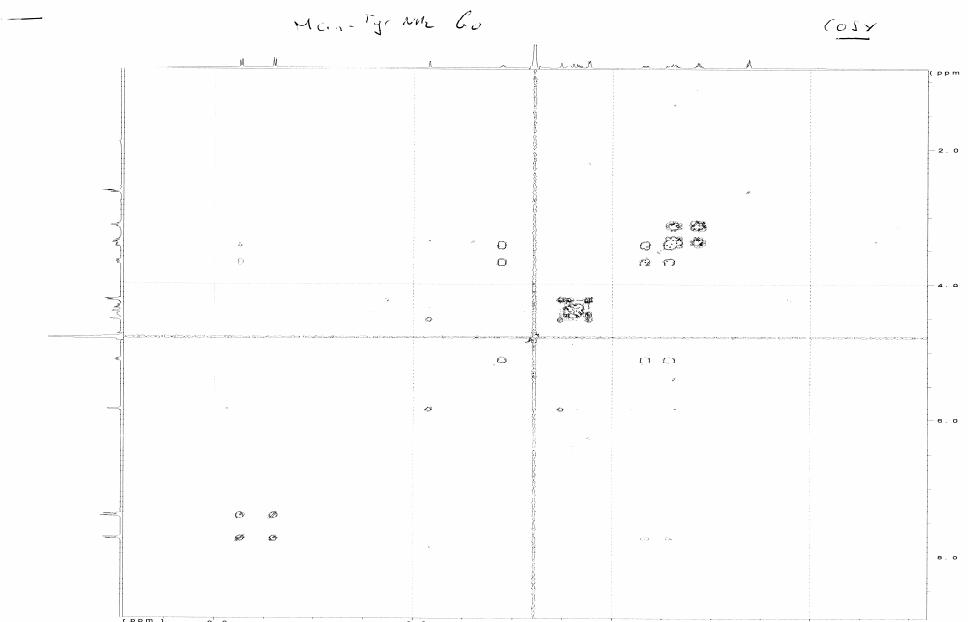
<sup>13</sup>C NMR spectrum of the glycopeptide derivative G0



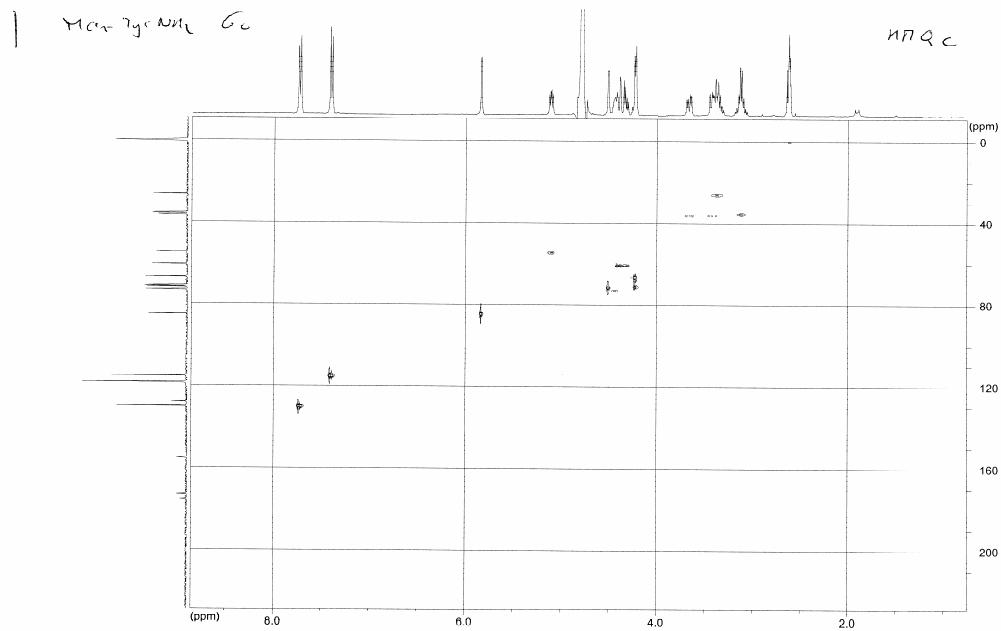
## DEPT spectrum of the glycopeptide derivative G0



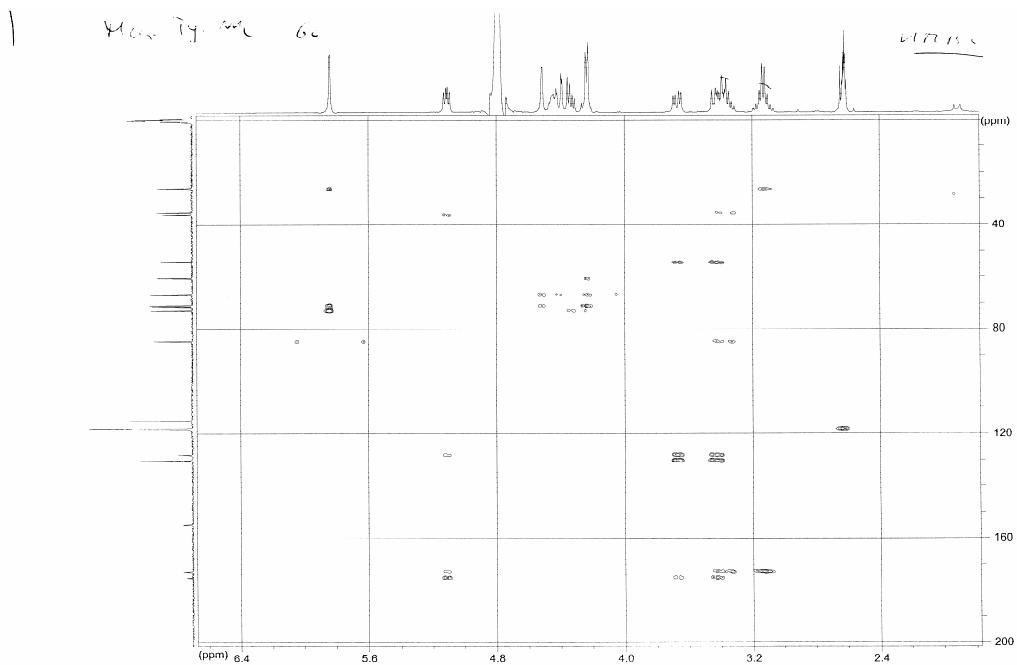
## COSY spectrum of the glycopeptide derivative G0



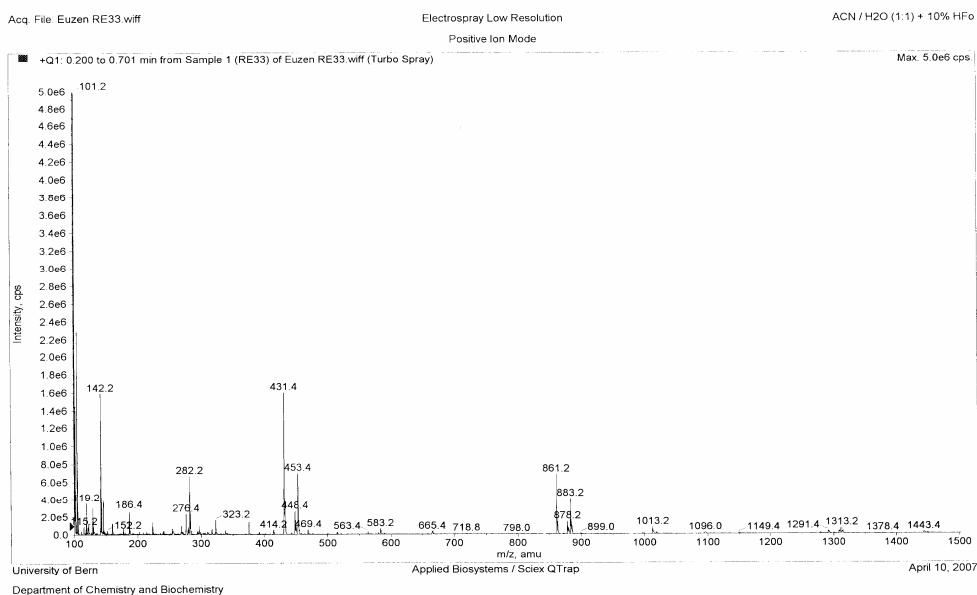
HMQC spectrum of the glycopeptide derivative G0



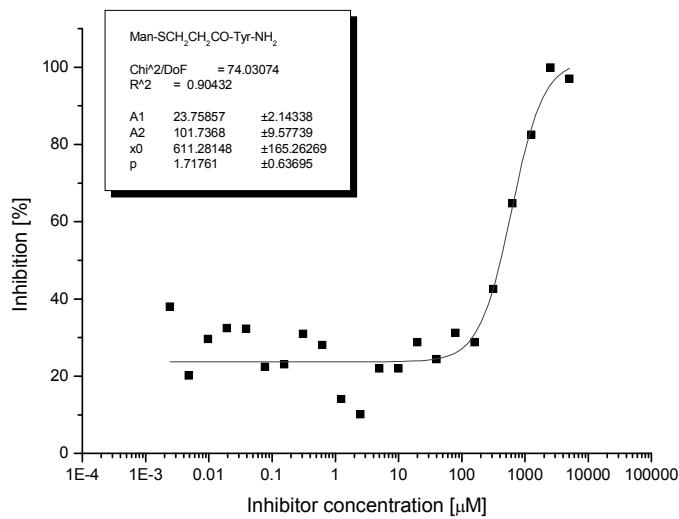
HMBC spectrum of the glycopeptide derivative G0



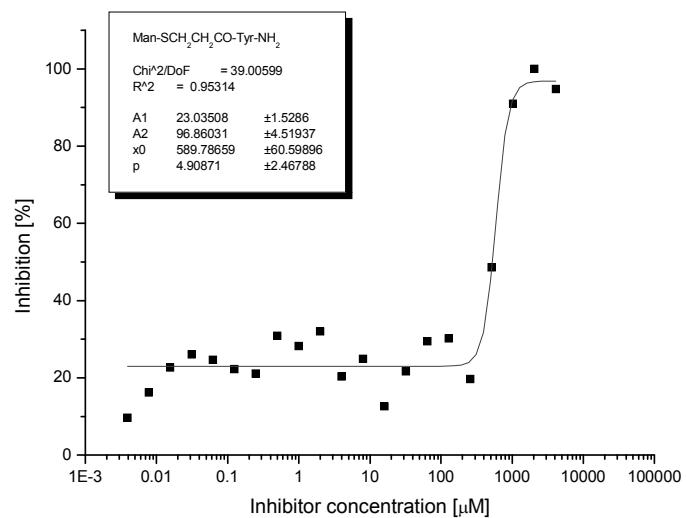
**Mass spectrum (ESI<sup>+</sup>) of the glycopeptide derivative G0**



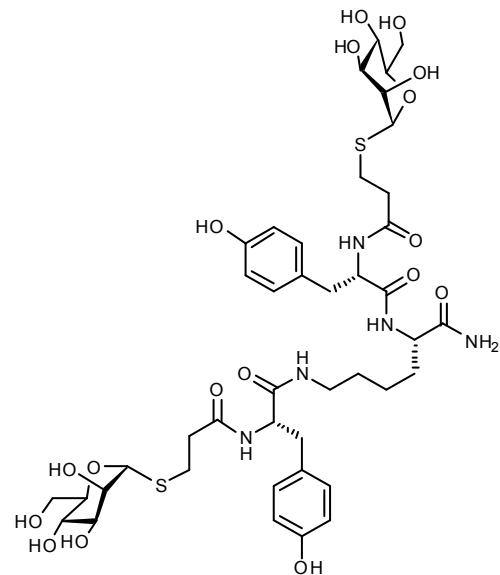
**Inhibition curve obtained by standard ELLA for the glycopeptide derivative G0**



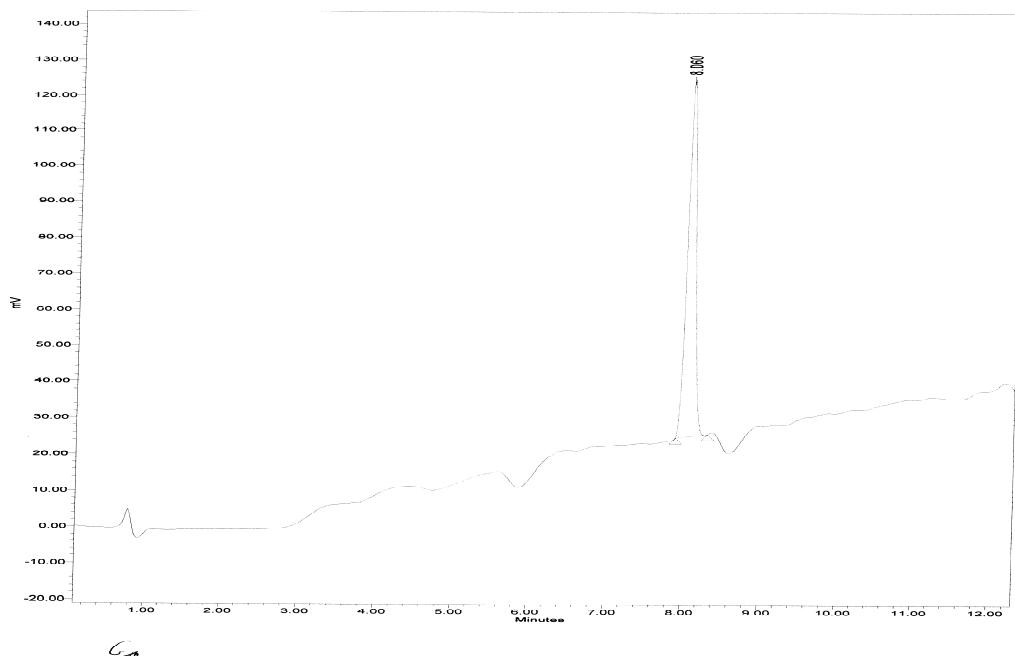
Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide derivative G0



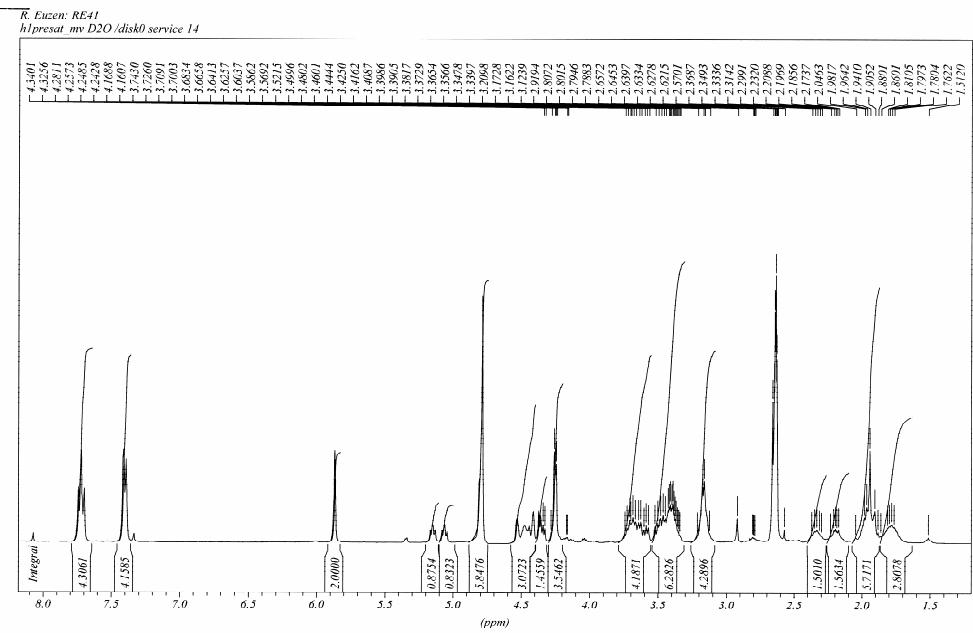
## Glycopeptide dendrimer G1



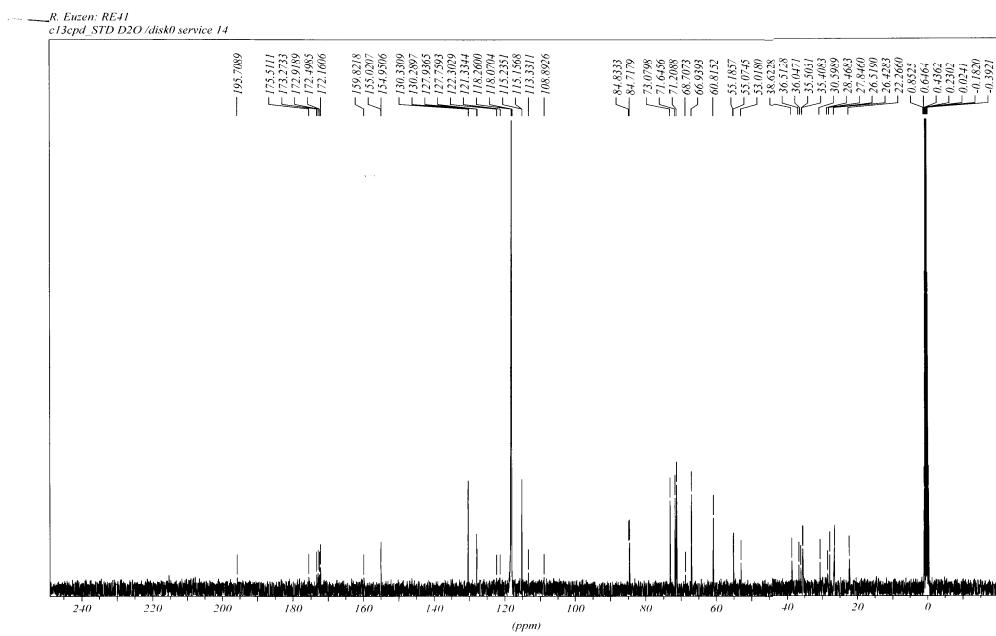
### HPLC analysis of the glycopeptide dendrimer G1



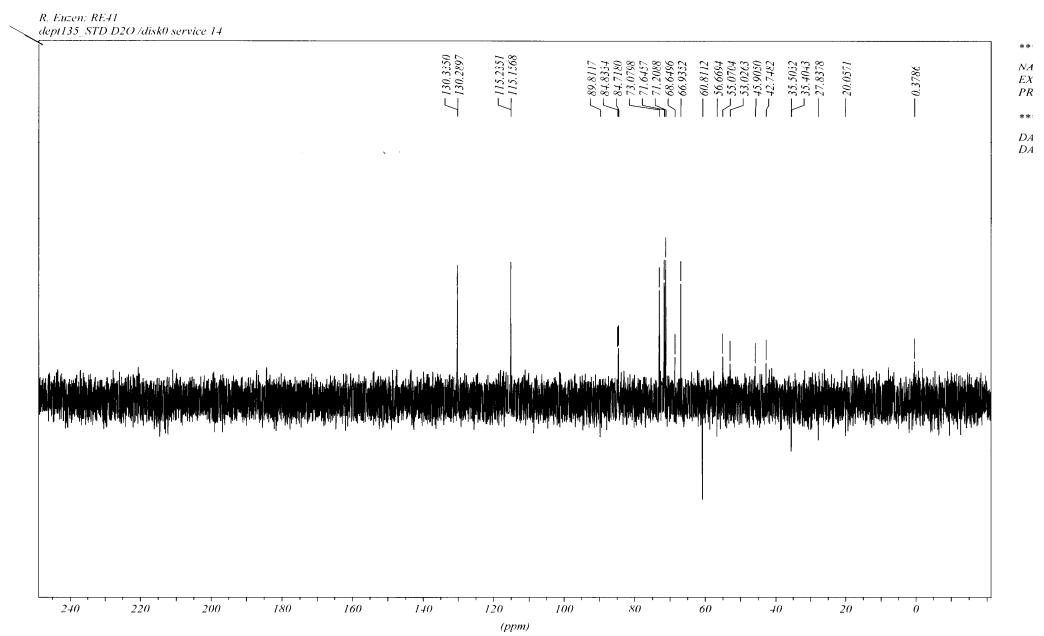
### <sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G1



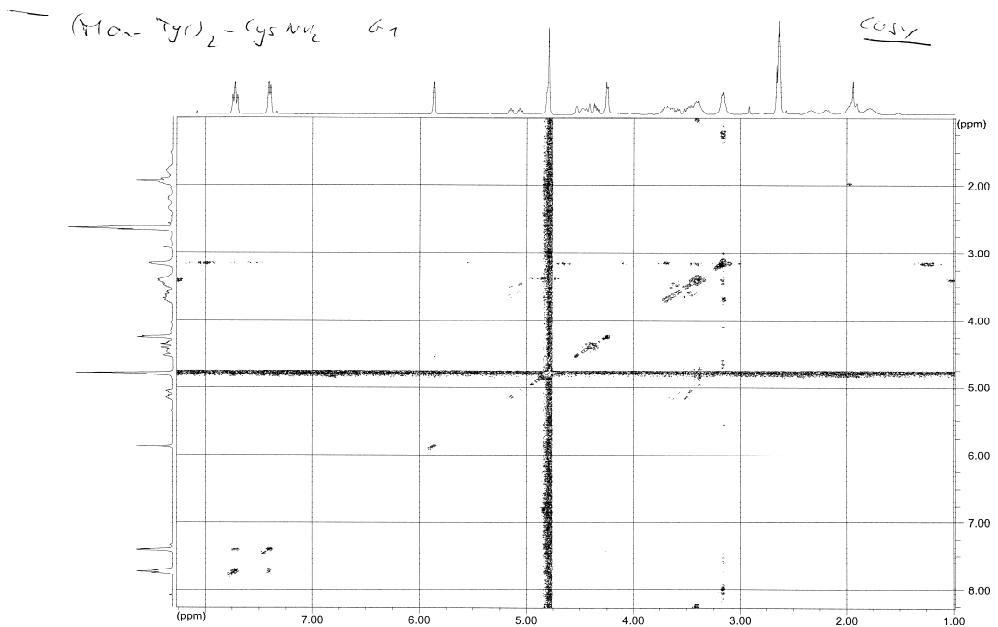
### <sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G1



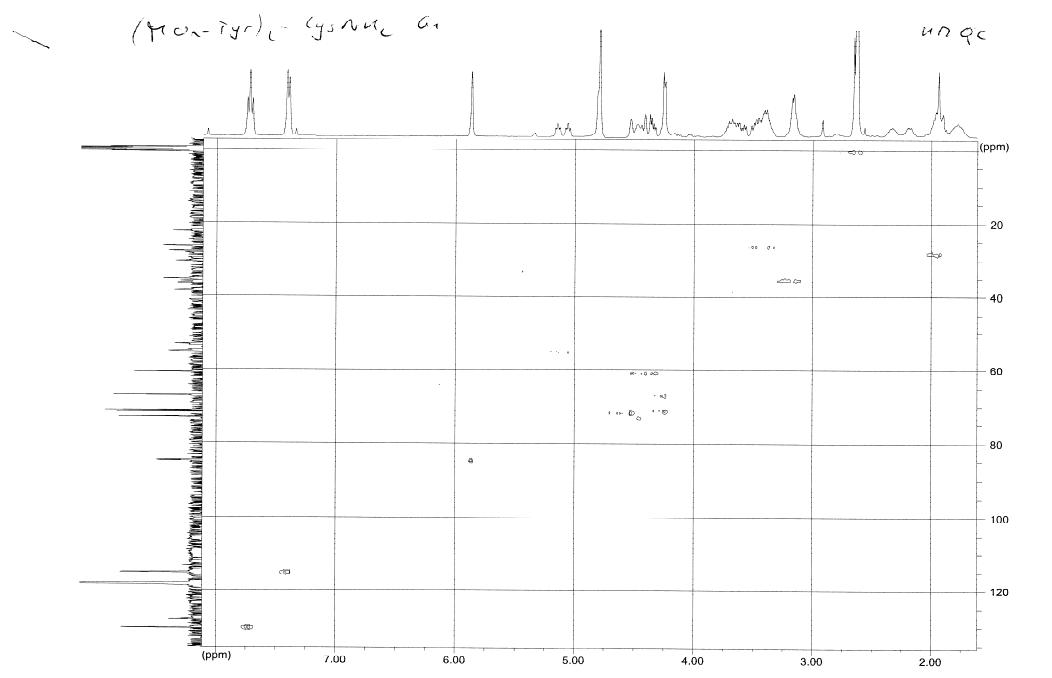
DEPT spectrum of the glycopeptide dendrimer G1



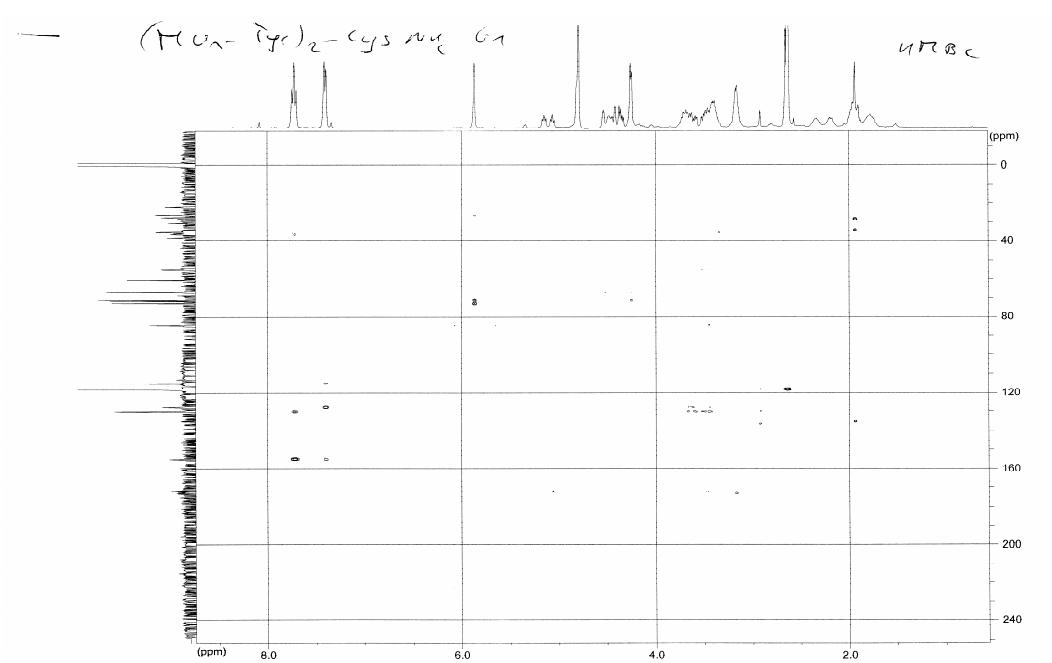
COSY spectrum of the glycopeptide dendrimer G1



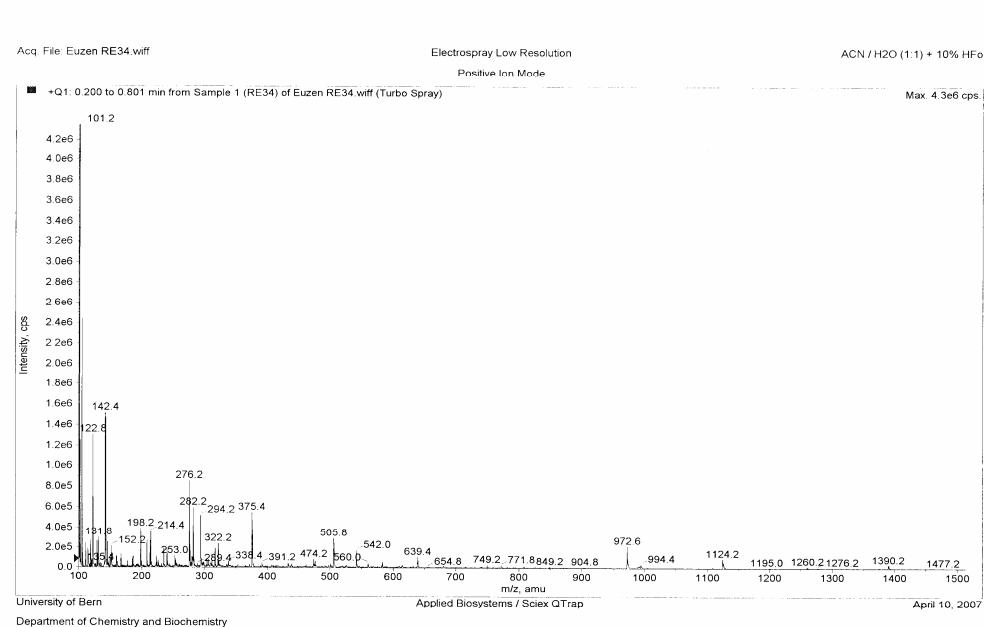
HMQC spectrum of the glycopeptide dendrimer G1



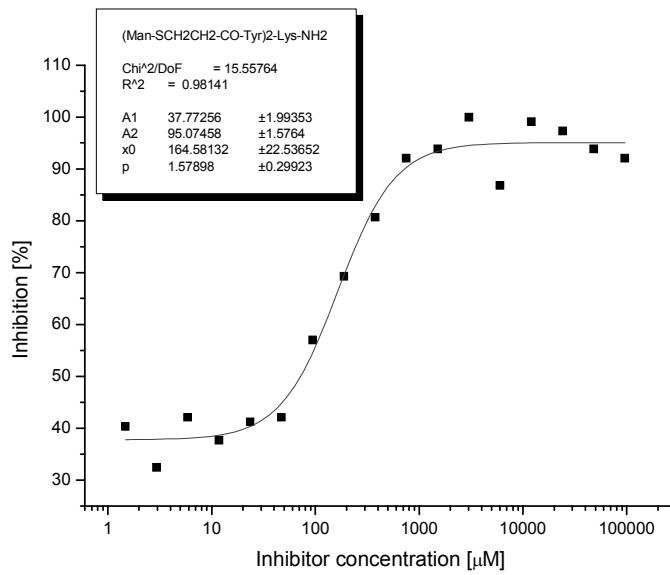
HMBC spectrum of the glycopeptide dendrimer G1



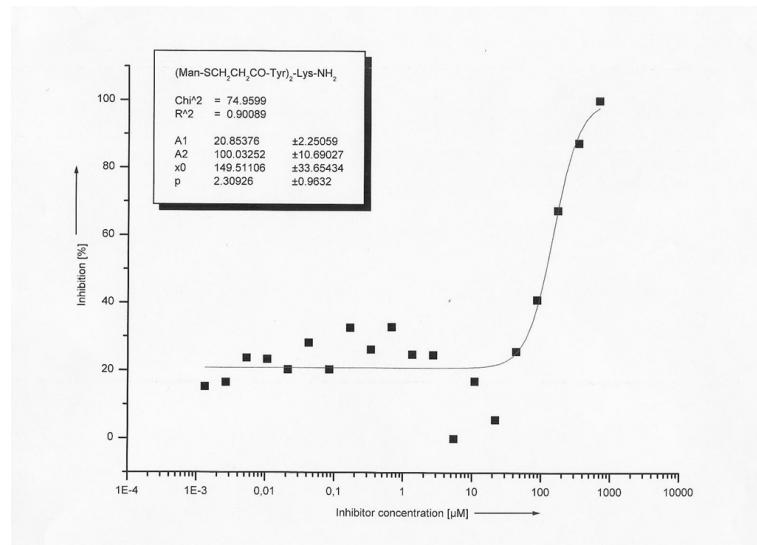
### Mass spectrum (ESI+) of the glycopeptide dendrimer G1



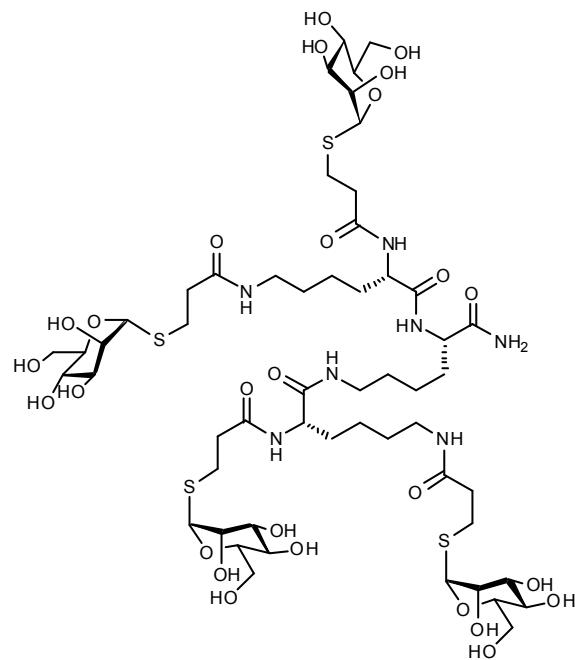
### Inhibition curve obtained by standard ELLA for the glycopeptide dendrimer G1



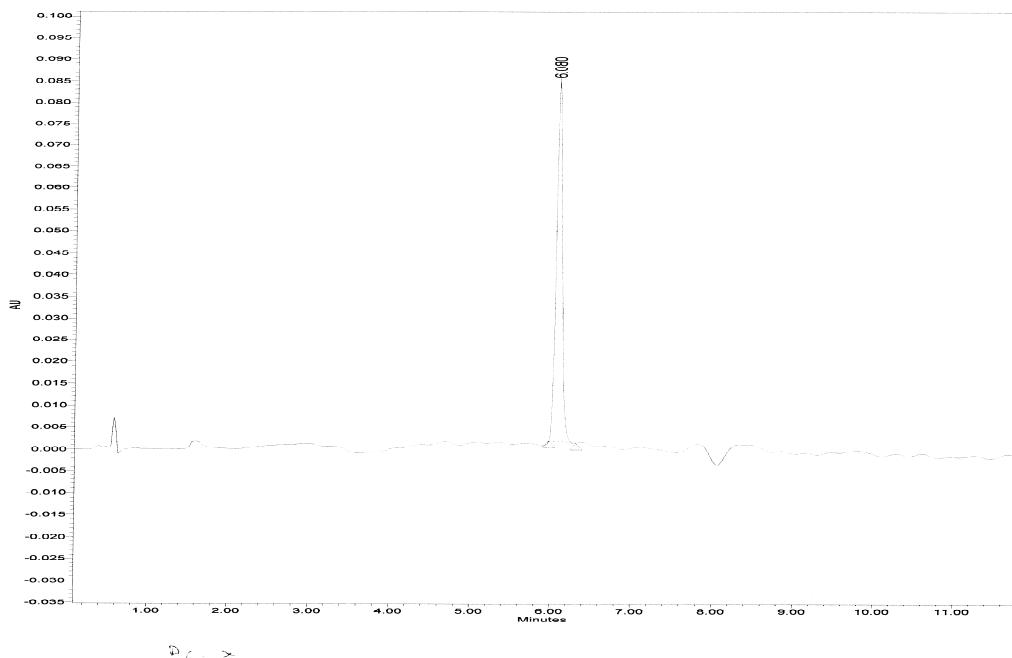
Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G1



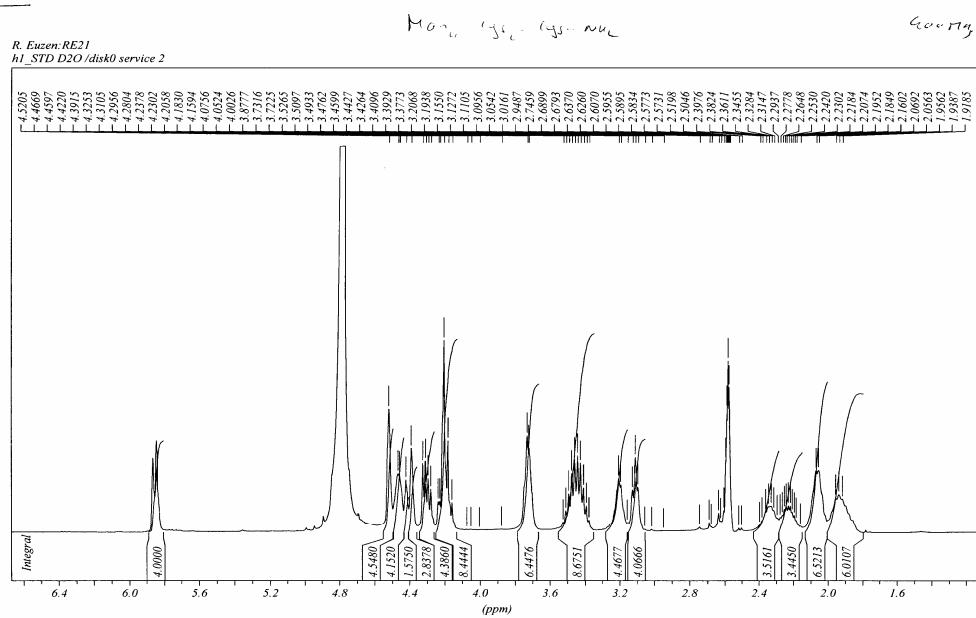
## Glycopeptide dendrimer G2a



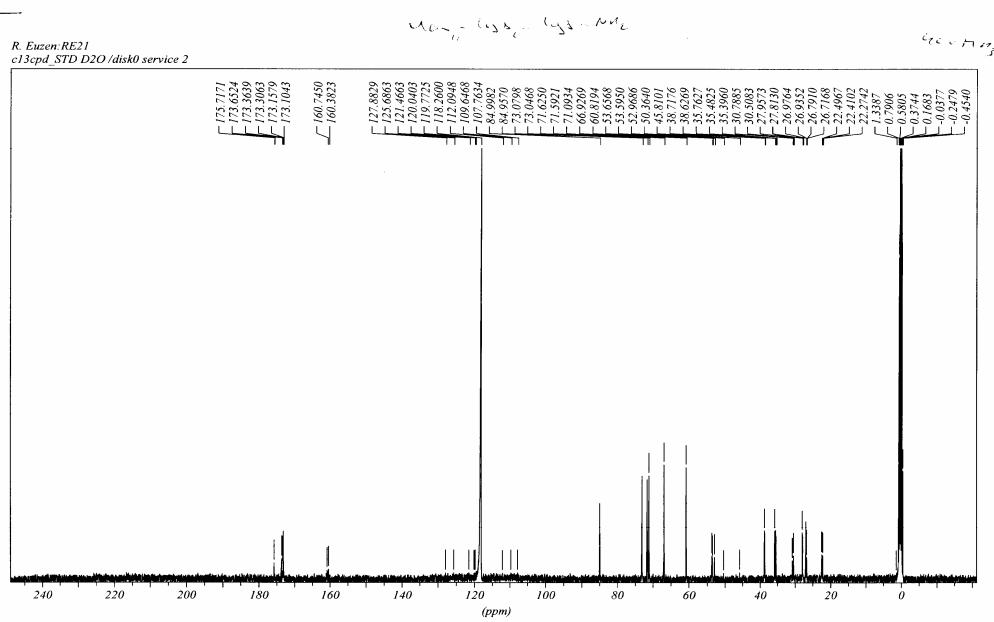
### HPLC analysis of the glycopeptide dendrimer G2a



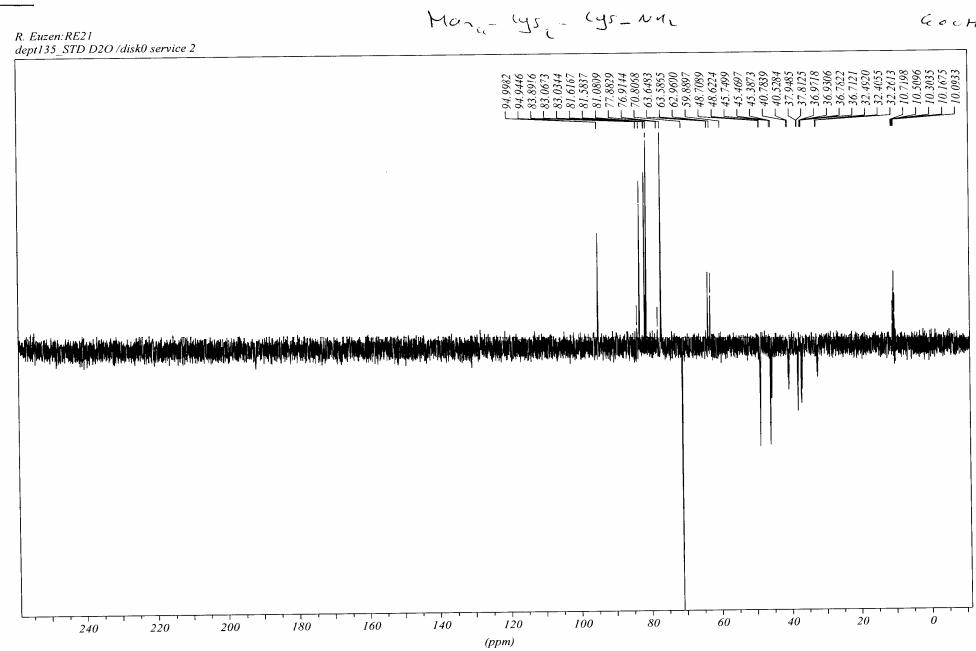
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2a



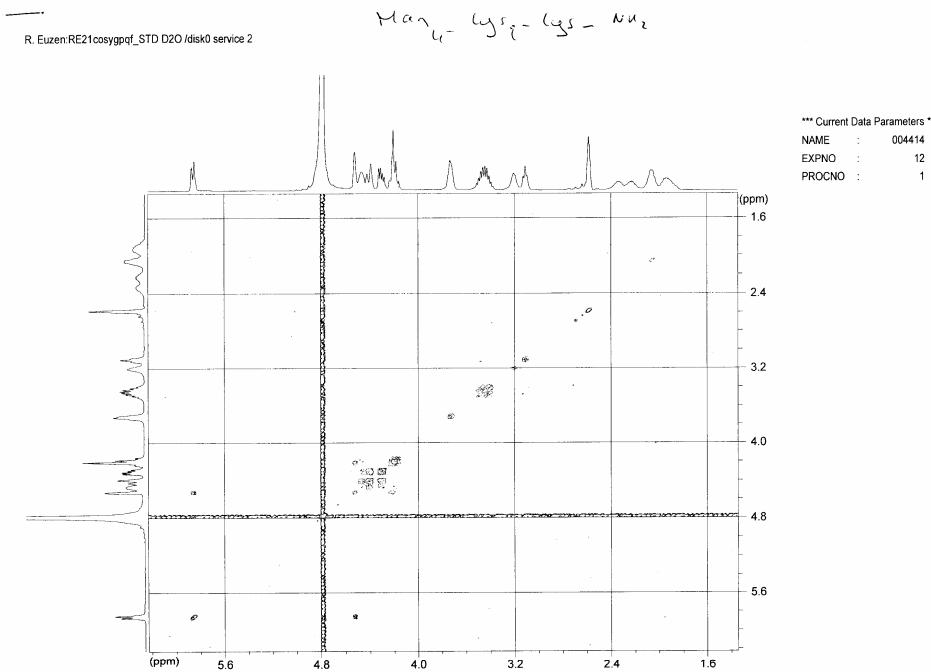
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2a



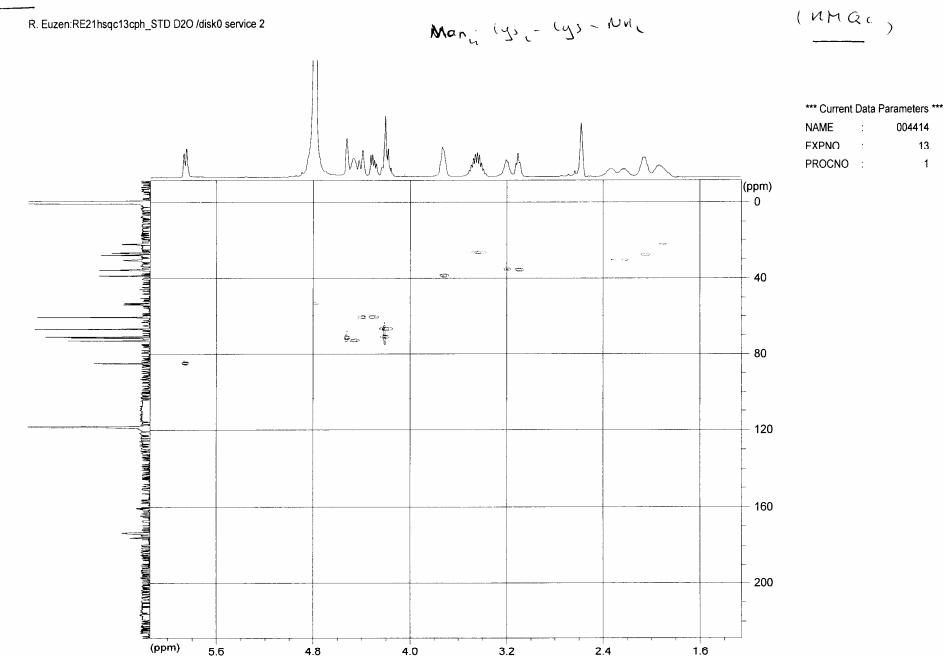
### DEPT spectrum of the glycopeptide dendrimer G2a



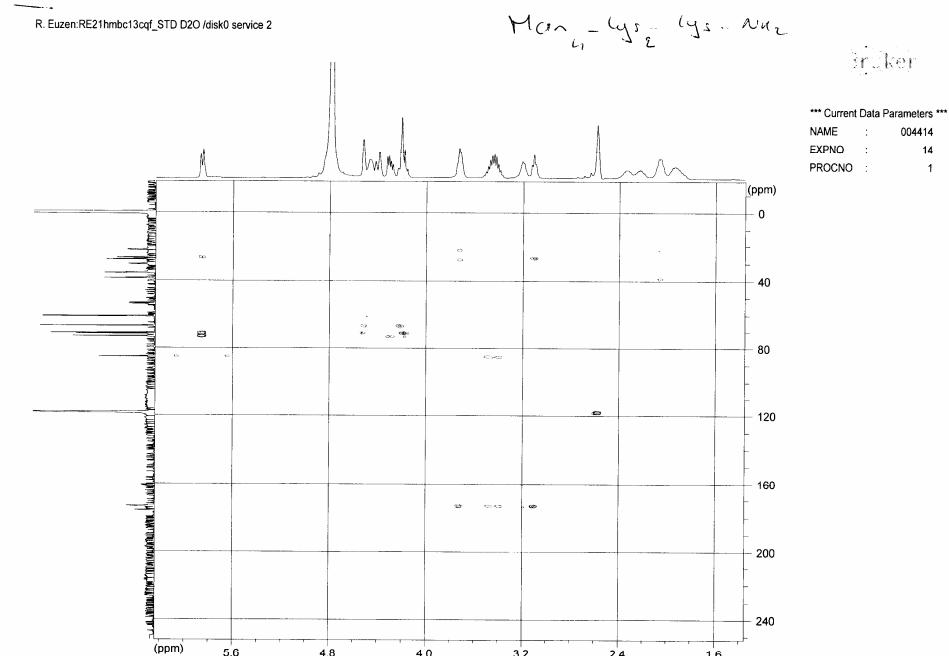
### COSY spectrum of the glycopeptide dendrimer G2a



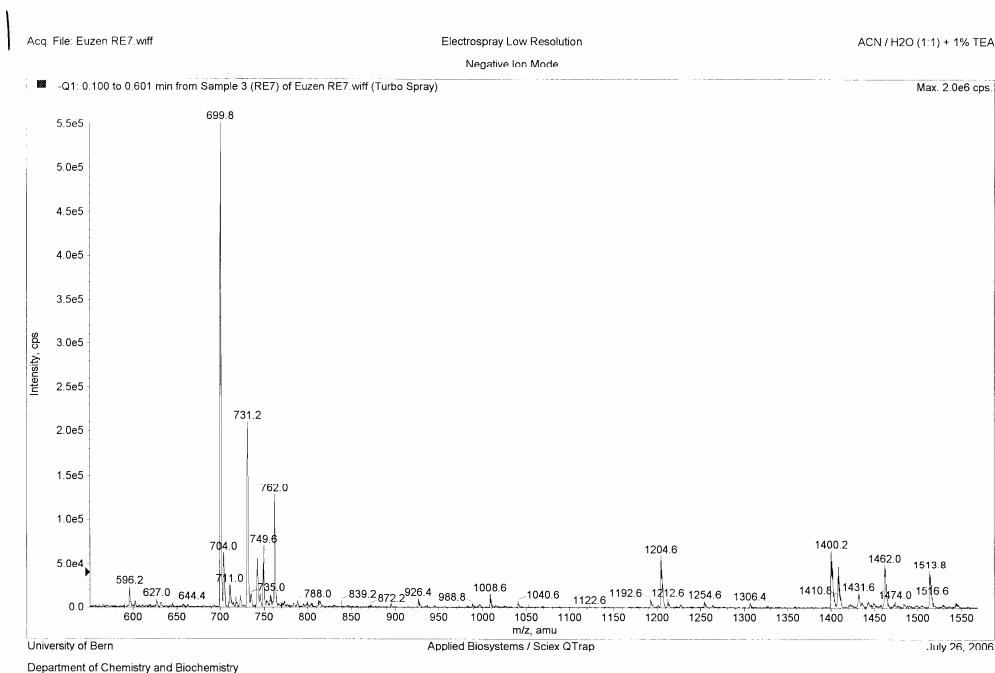
HMQC spectrum of the glycopeptide dendrimer G2a



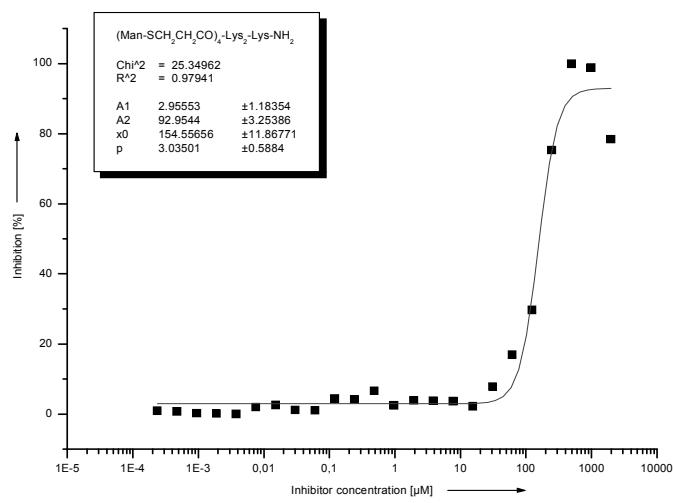
HMBC spectrum of the glycopeptide dendrimer G2a



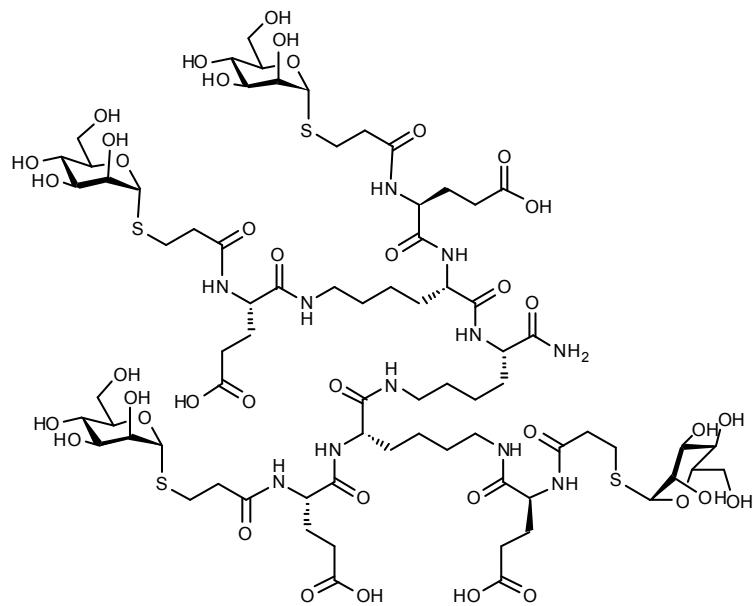
Mass spectrum (ESI<sup>-</sup>) of the glycopeptide dendrimer G2a



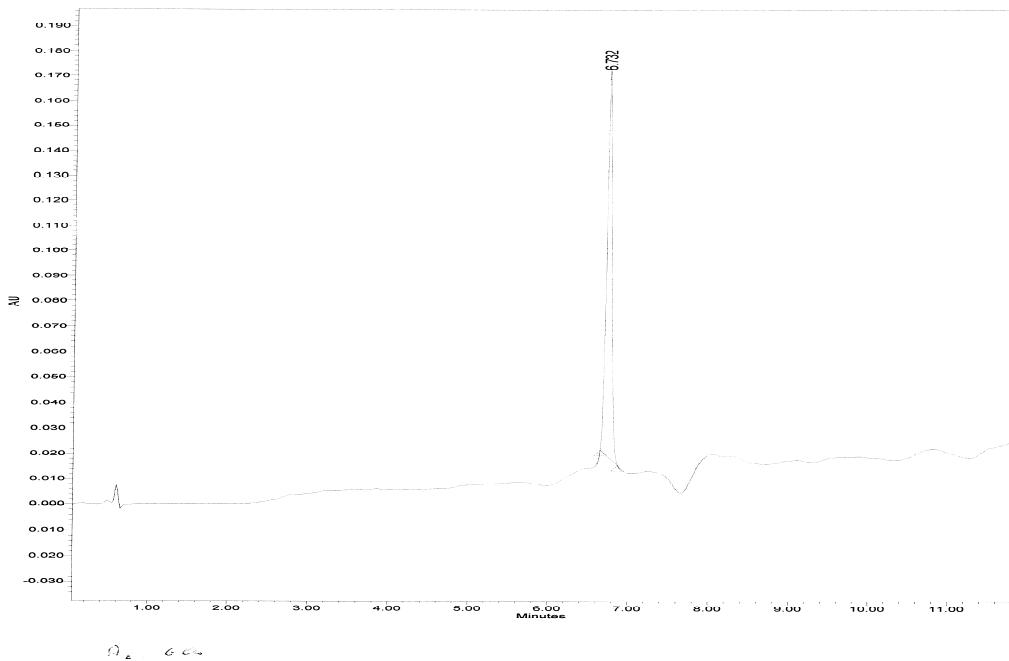
Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2a



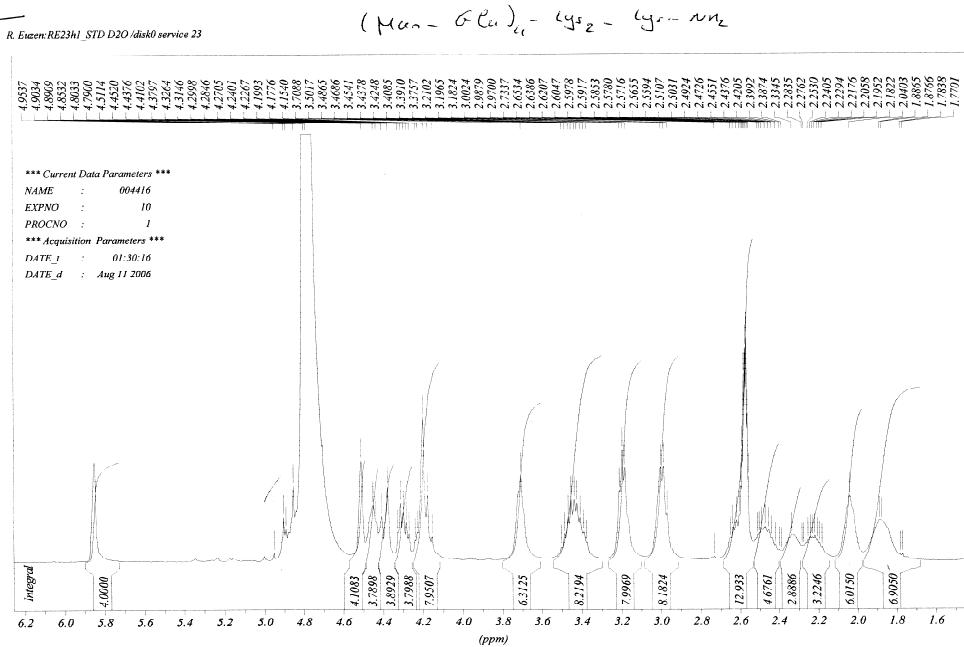
## Glycopeptide dendrimer G2b



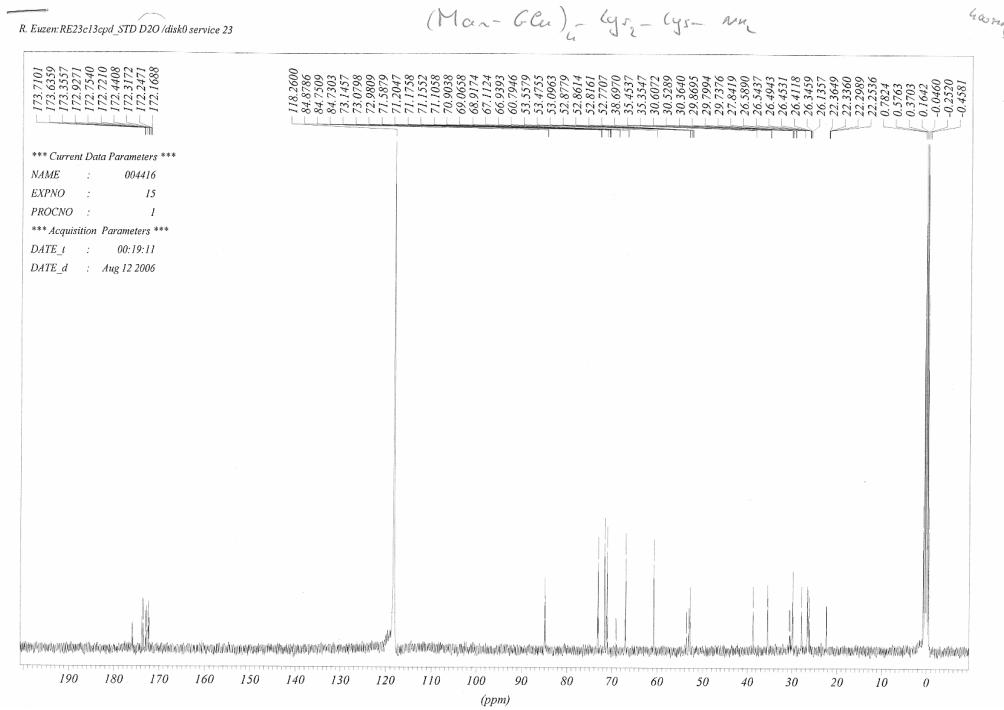
### HPLC analysis of the glycopeptide dendrimer G2b



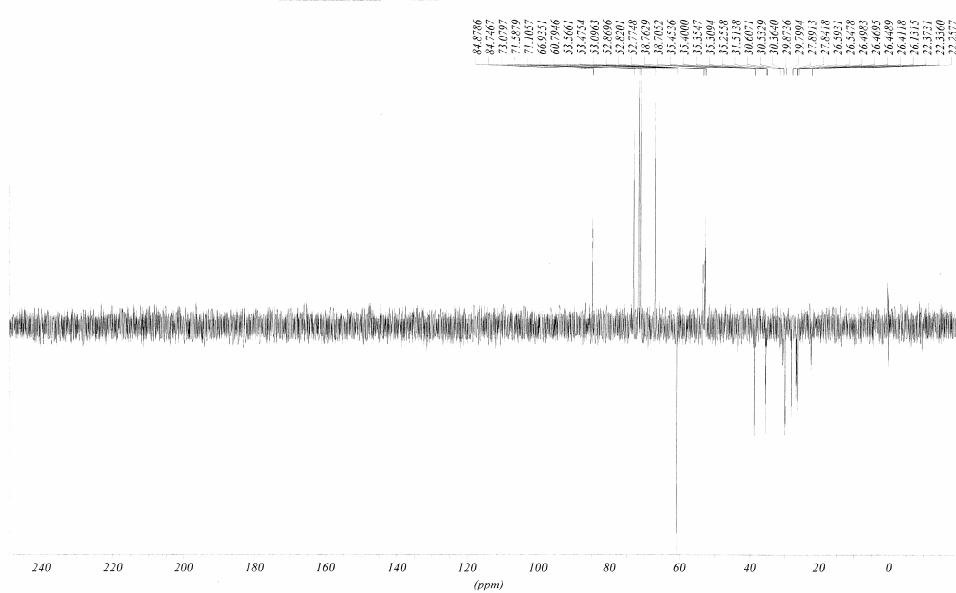
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2b



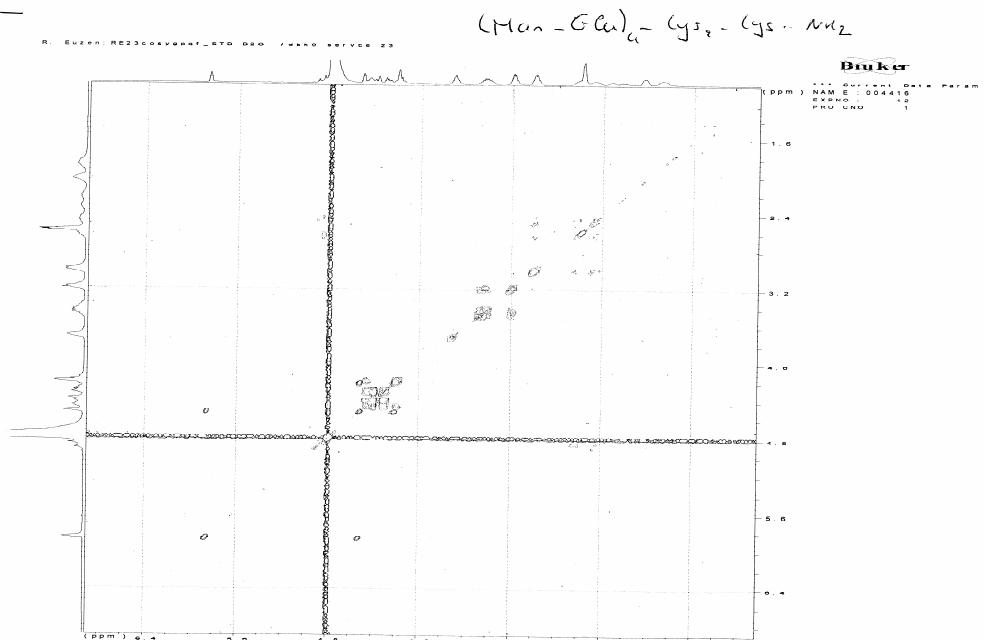
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2b



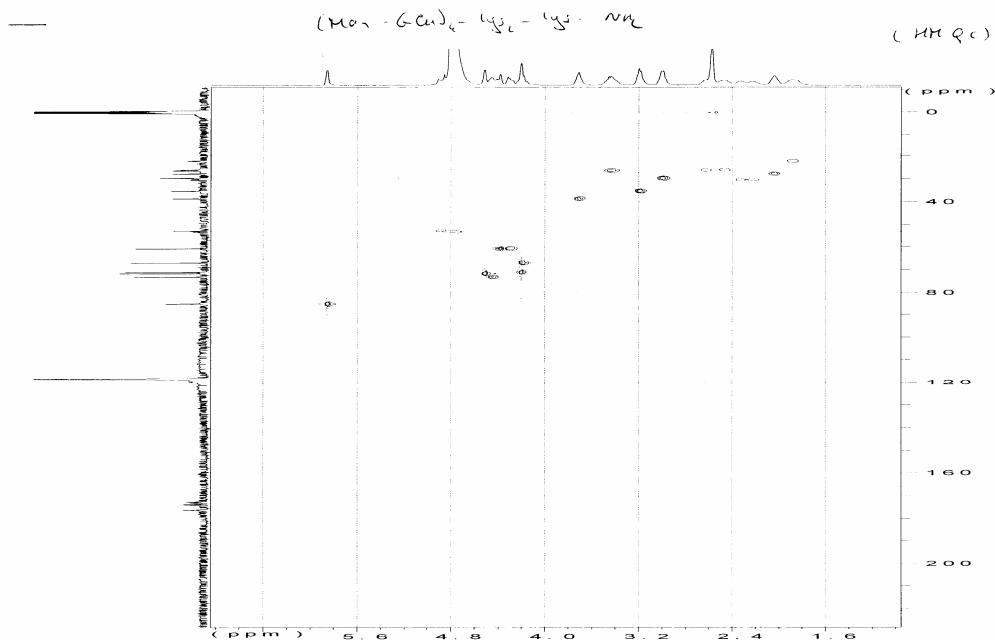
DEPT spectrum of the glycopeptide dendrimer G2b



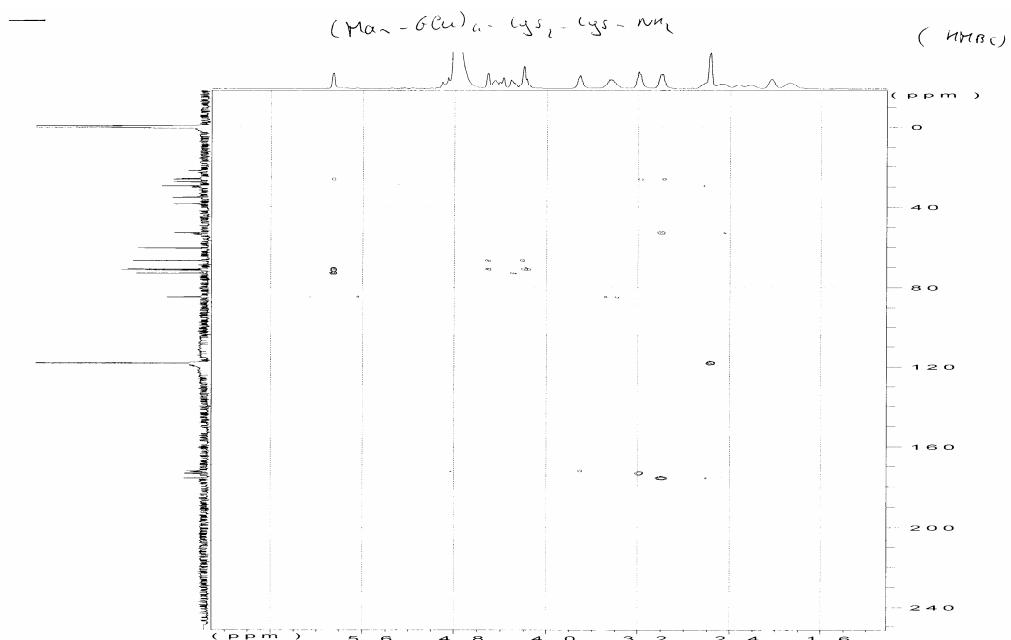
COSY spectrum of the glycopeptide dendrimer G2b



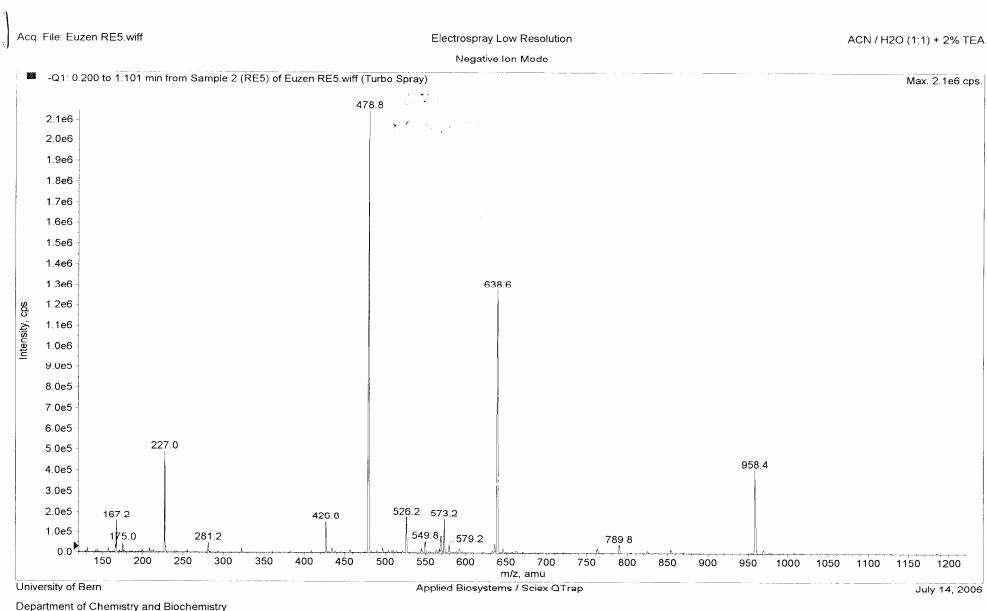
HMQC spectrum of the glycopeptide dendrimer G2b



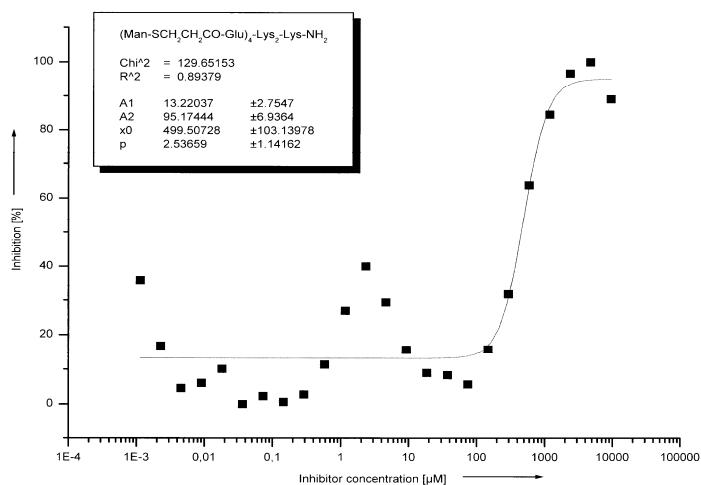
HMBC spectrum of the glycopeptide dendrimer G2b



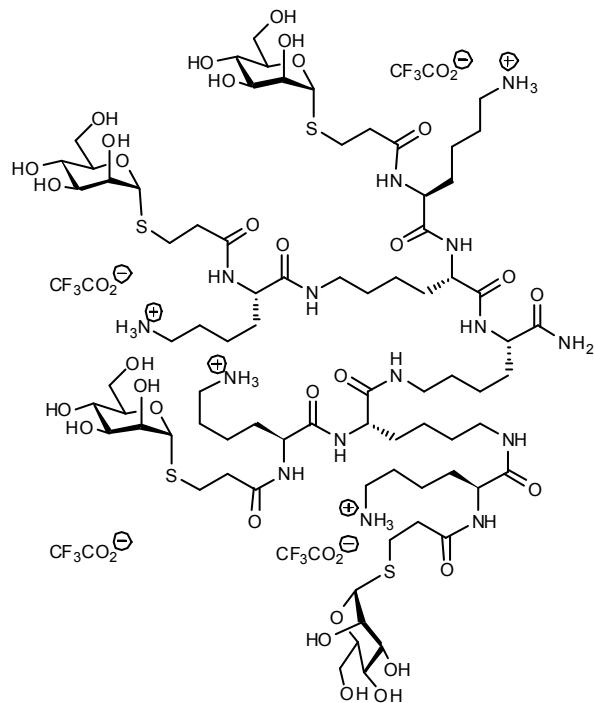
### Mass spectrum (ESI-) of the glycopeptide dendrimer G2b



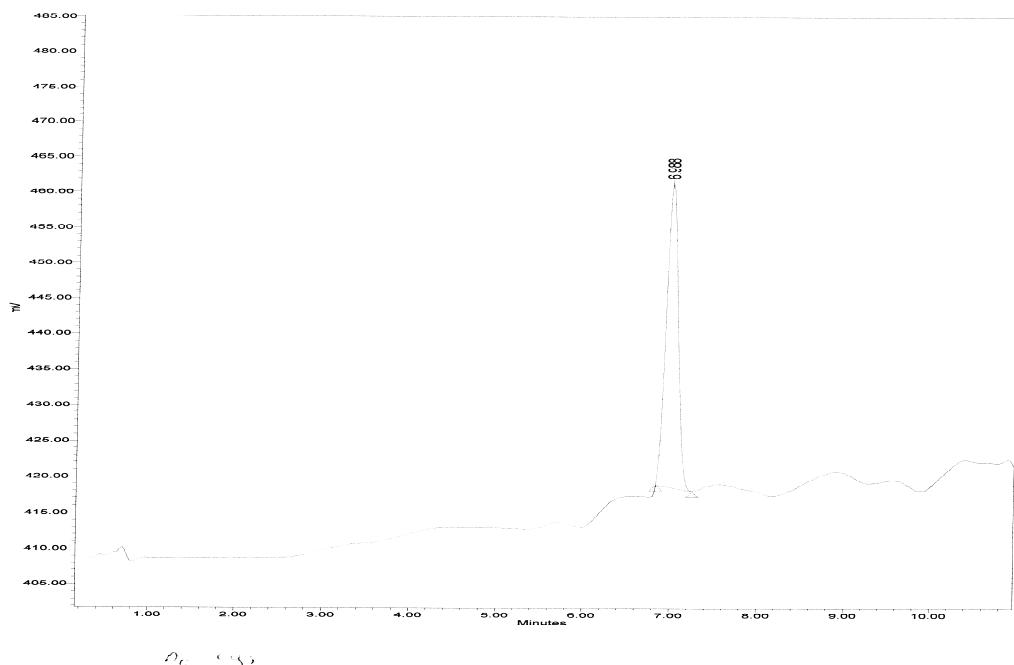
### Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2b



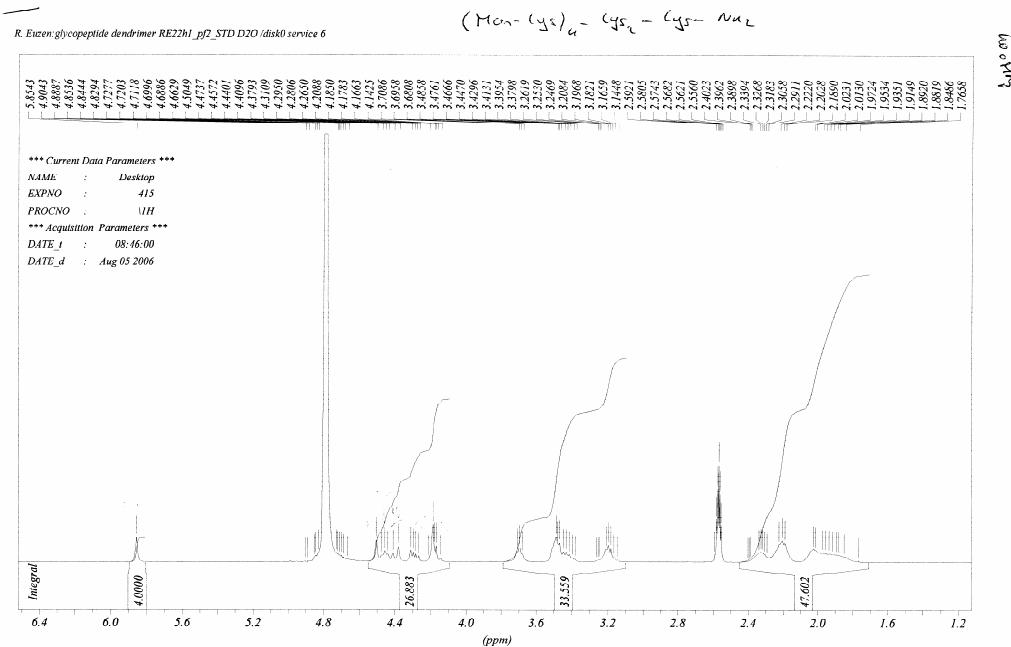
## Glycopeptide dendrimer G2c



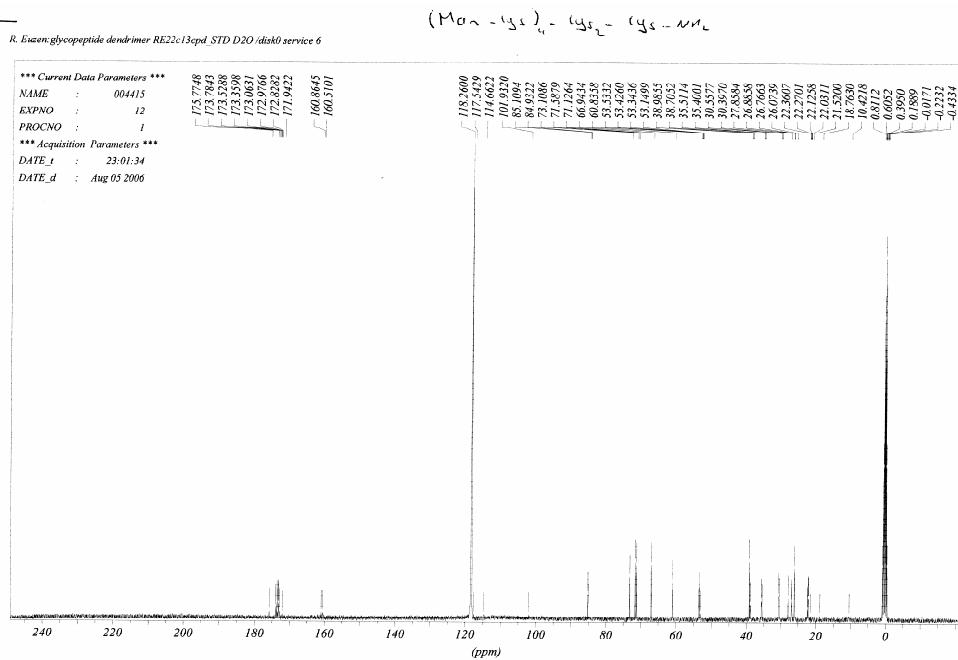
### HPLC analysis of the glycopeptide dendrimer G2c



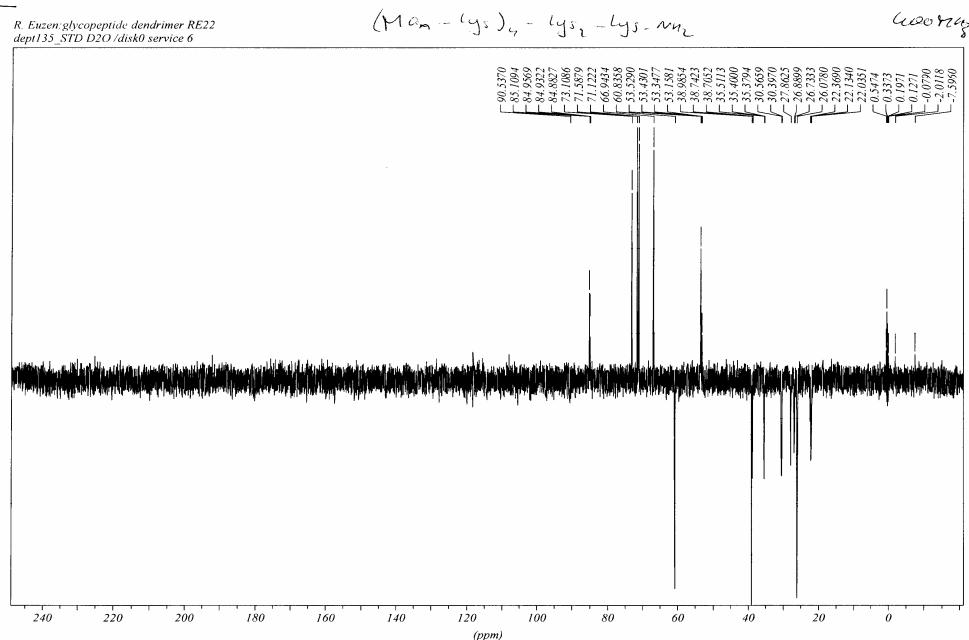
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2c



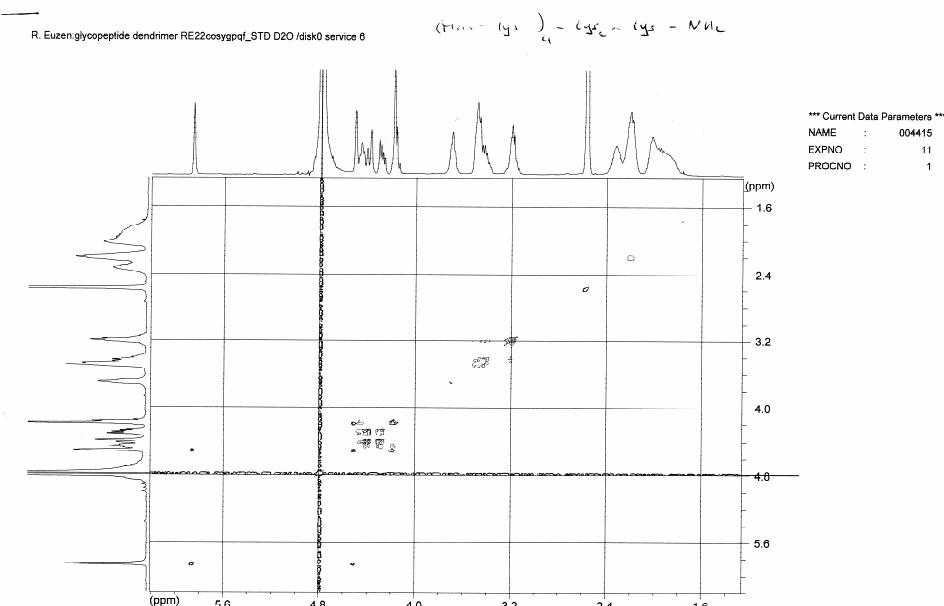
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2c



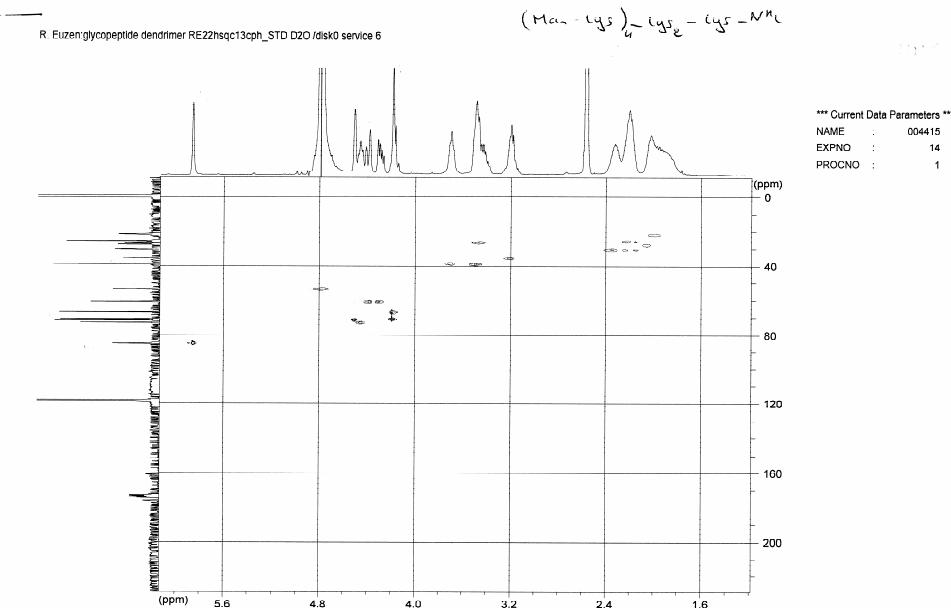
DEPT spectrum of the glycopeptide dendrimer G2c



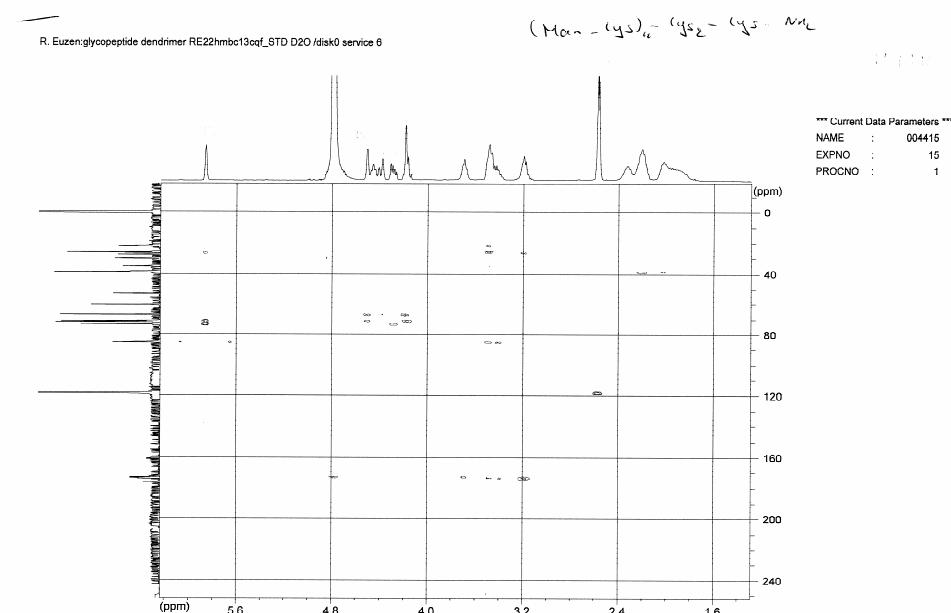
COSY spectrum of the glycopeptide dendrimer G2c



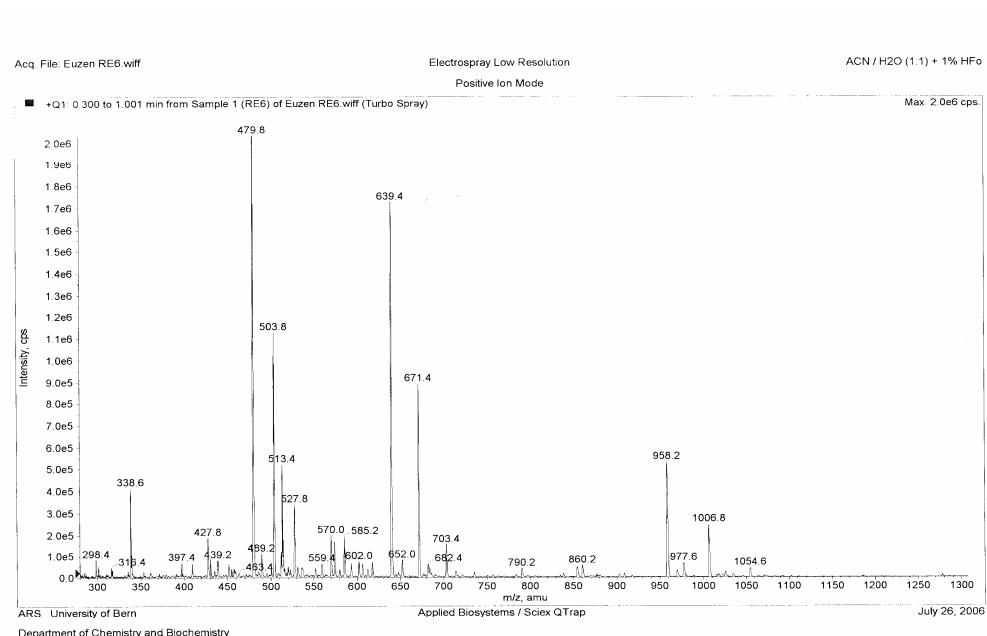
HMQC spectrum of the glycopeptide dendrimer G2c



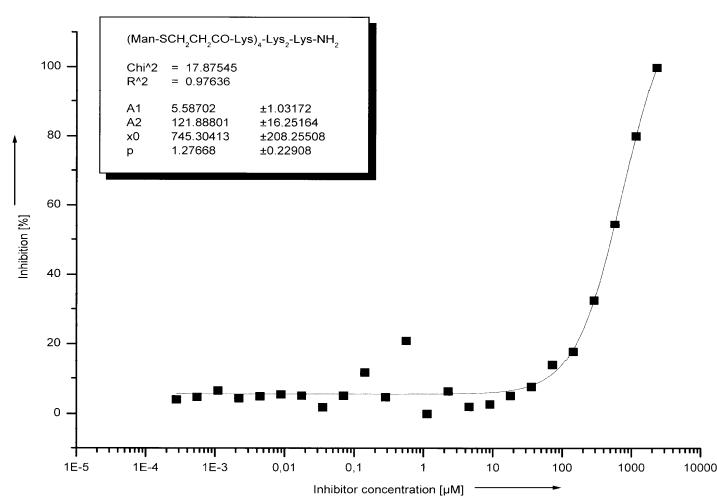
HMBC spectrum of the glycopeptide dendrimer G2c



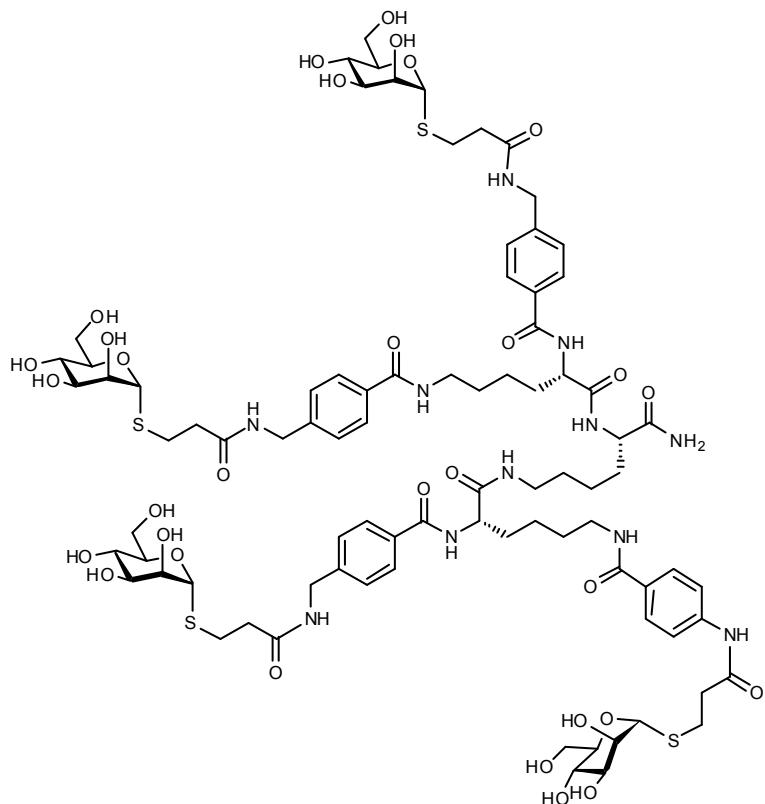
### Mass spectrum (ESI<sup>+</sup>) of the glycopeptide dendrimer G2c



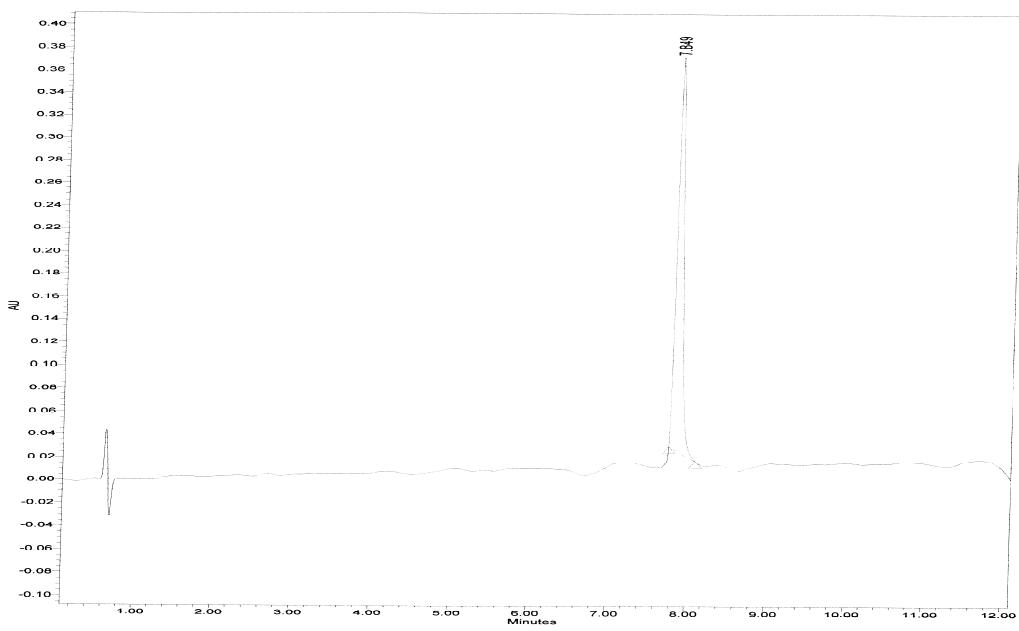
### Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2c



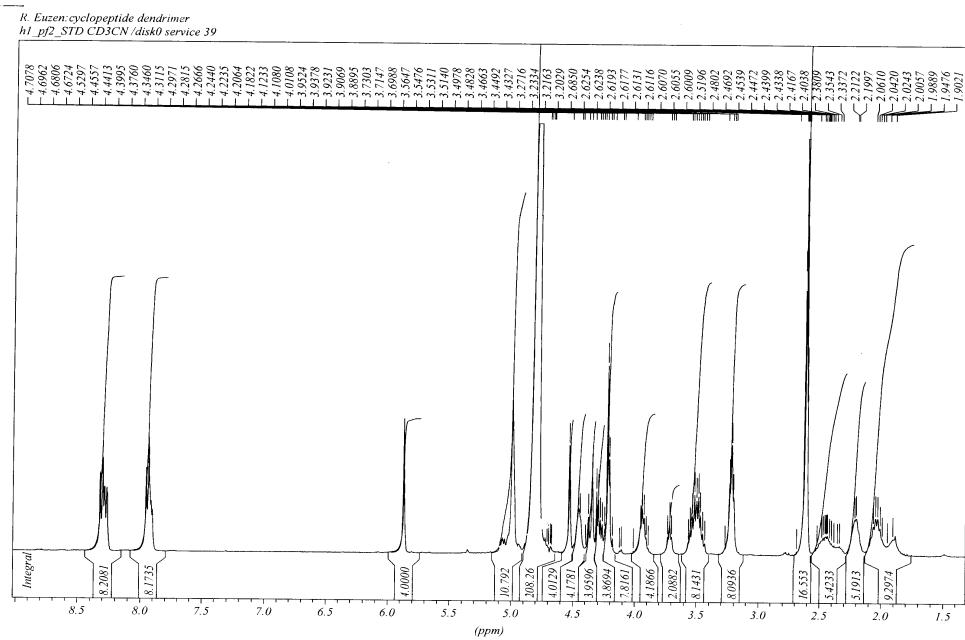
## Glycopeptide dendrimer G2d



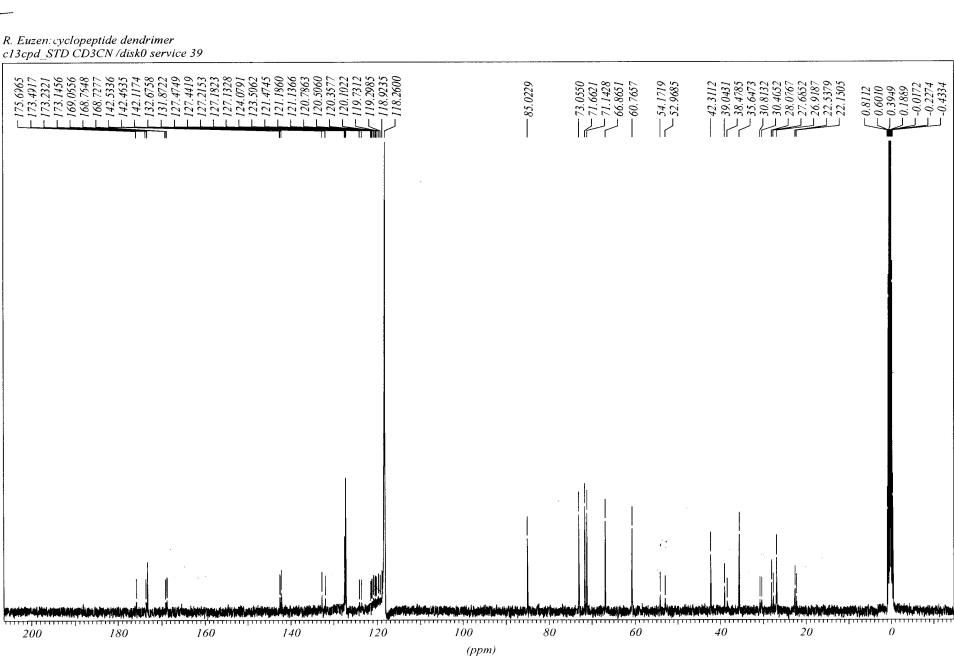
### HPLC analysis of the glycopeptide dendrimer G2d



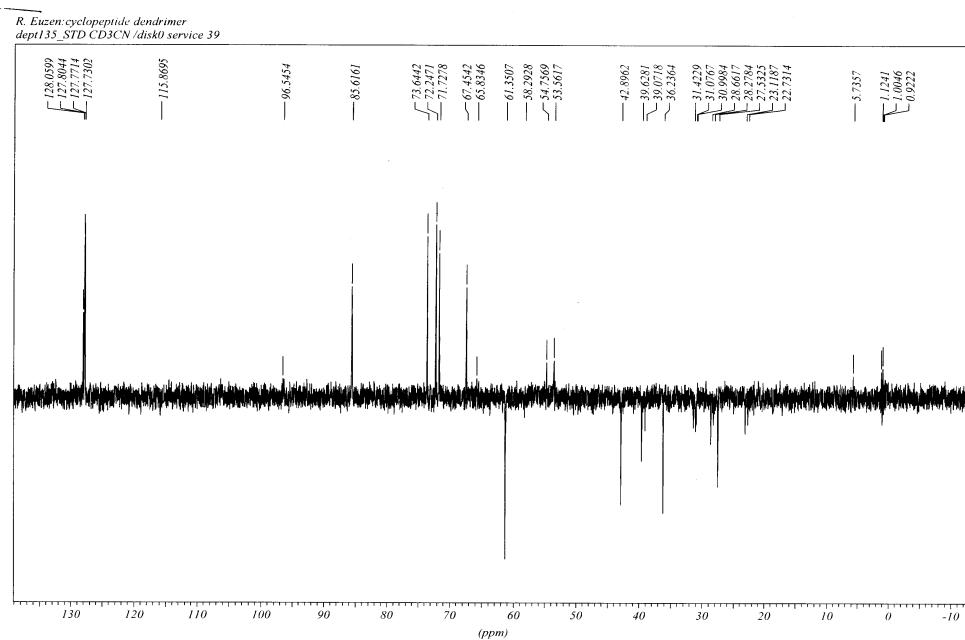
**<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2d**



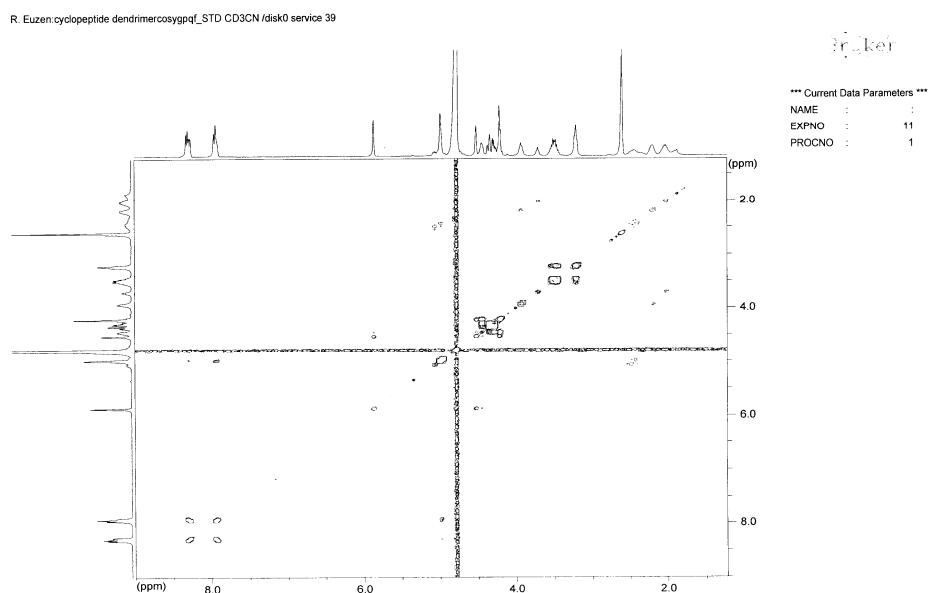
**<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2d**



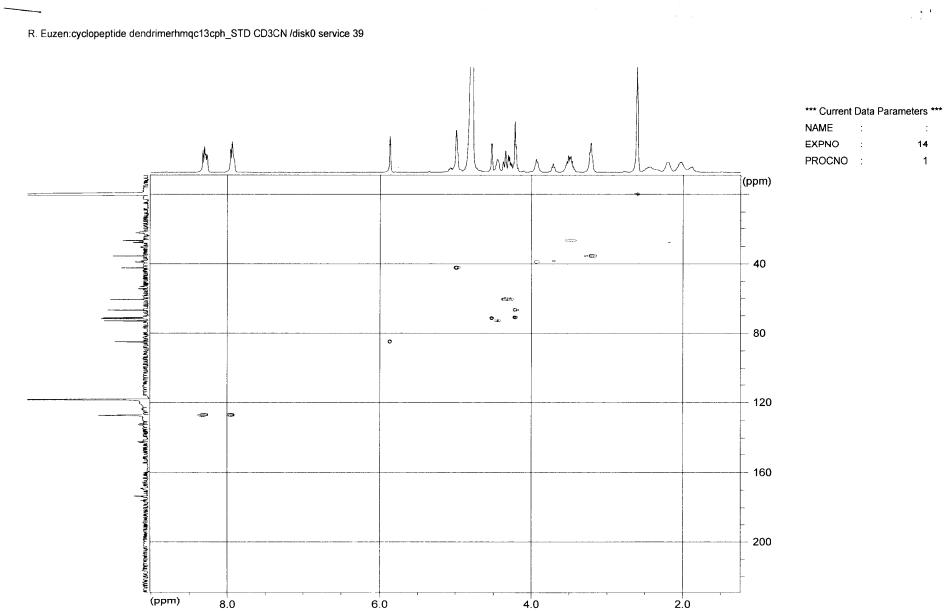
DEPT spectrum of the glycopeptide dendrimer G2d



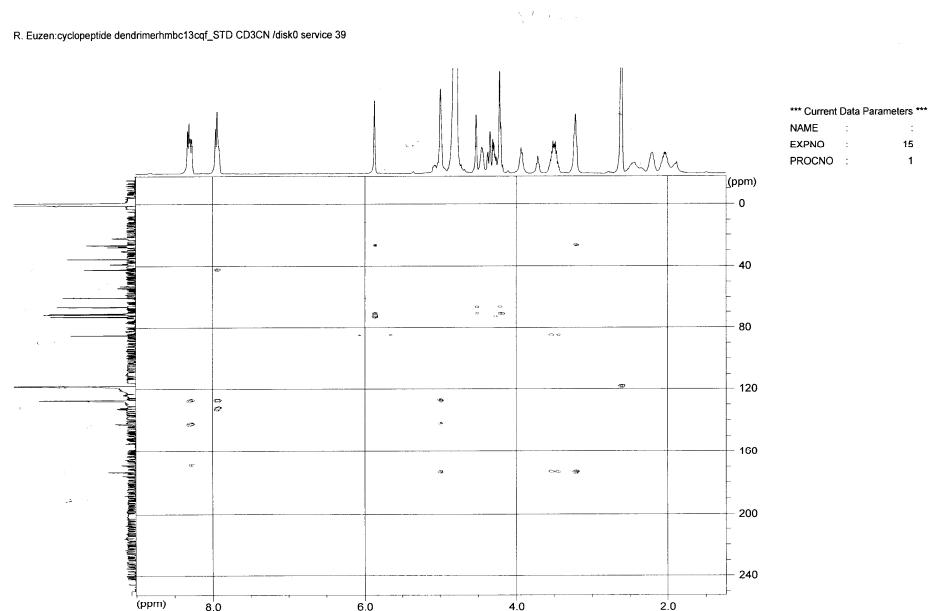
COSY spectrum of the glycopeptide dendrimer G2d



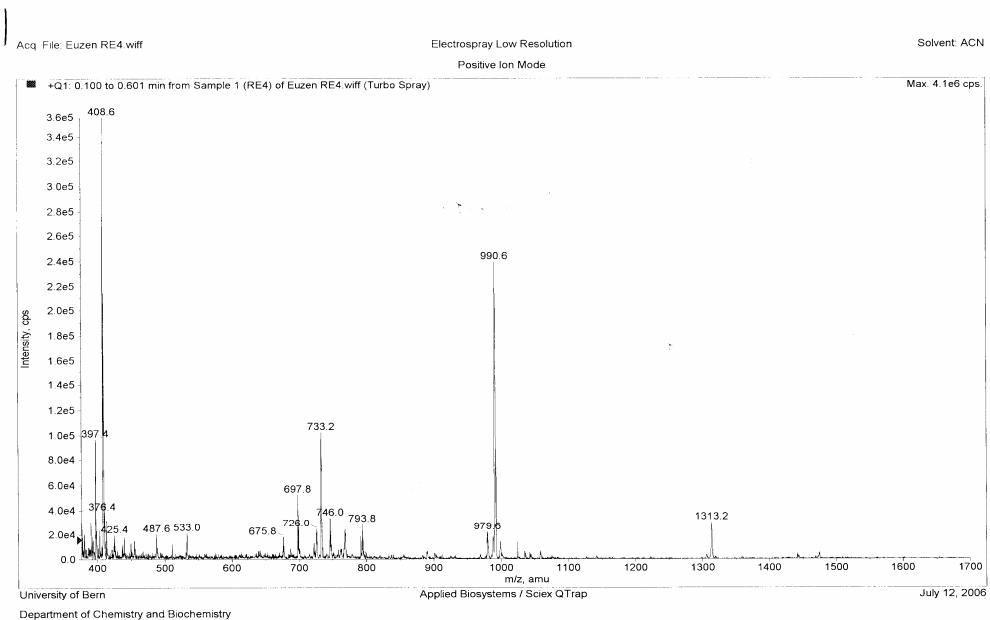
HMOC spectrum of the glycopeptide dendrimer G2d



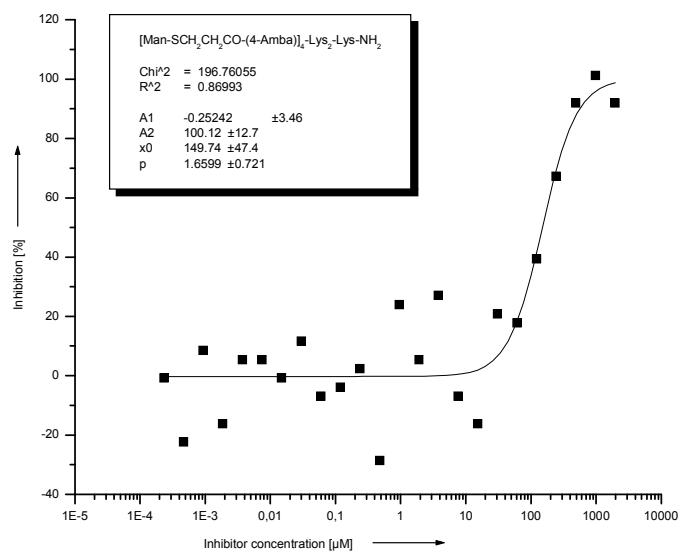
HMBC spectrum of the glycopeptide dendrimer G2d



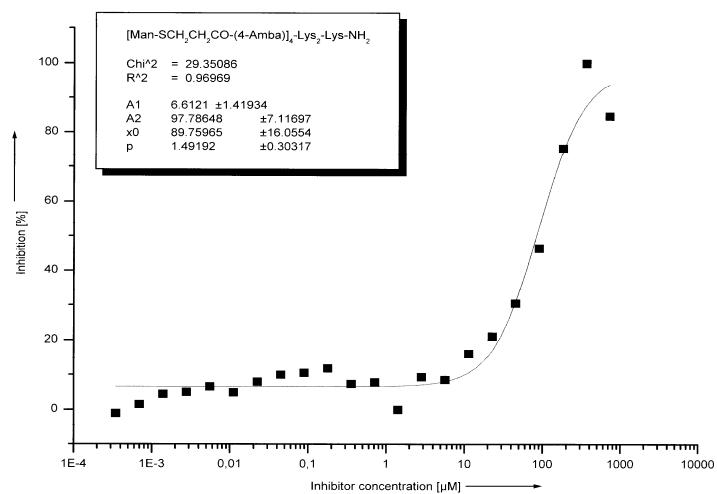
### Mass spectrum (ESI+) of the glycopeptide dendrimer G2d



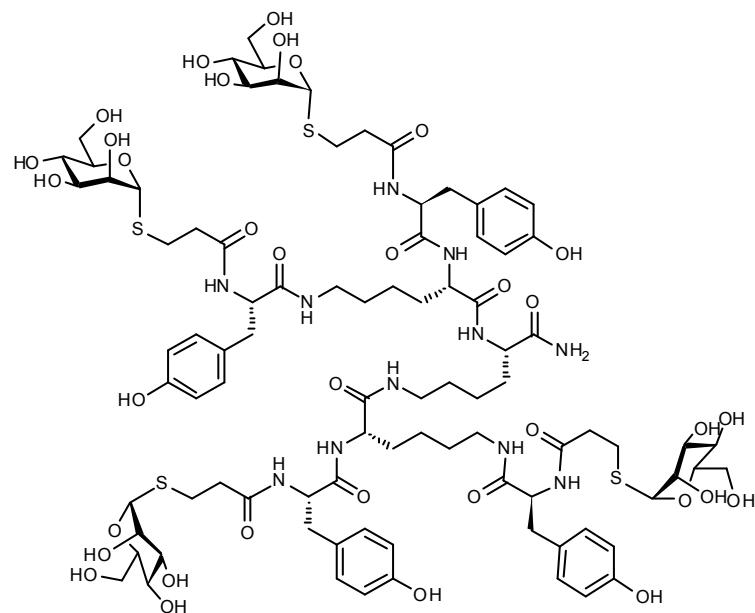
### Inhibition curve obtained by standard ELLA for the glycopeptide dendrimer G2d



Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2d



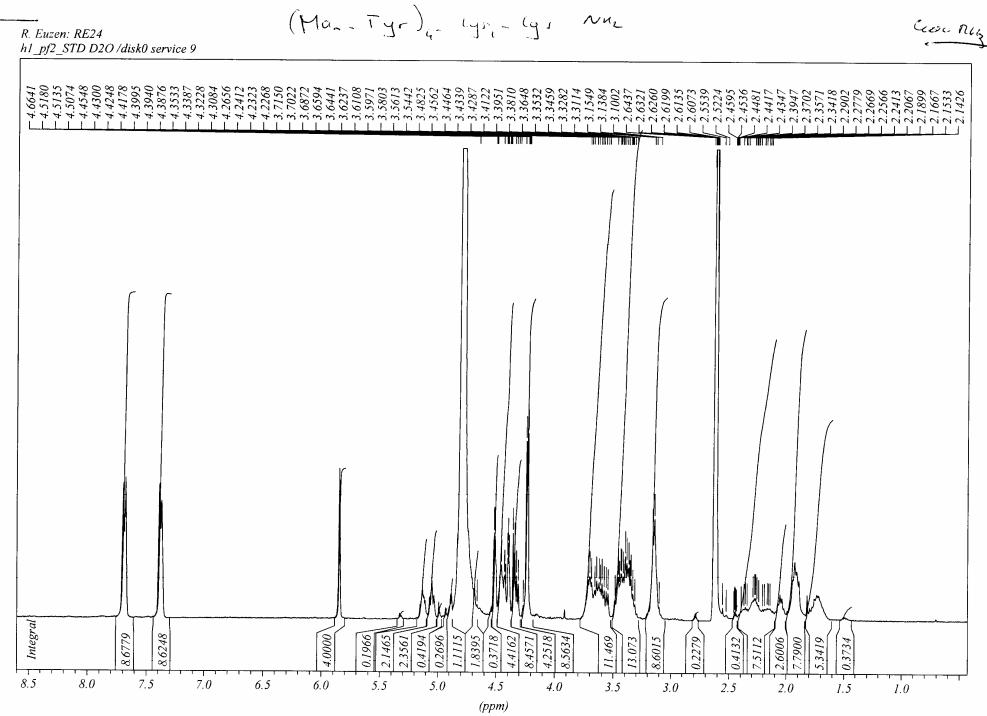
## Glycopeptide dendrimer G2e



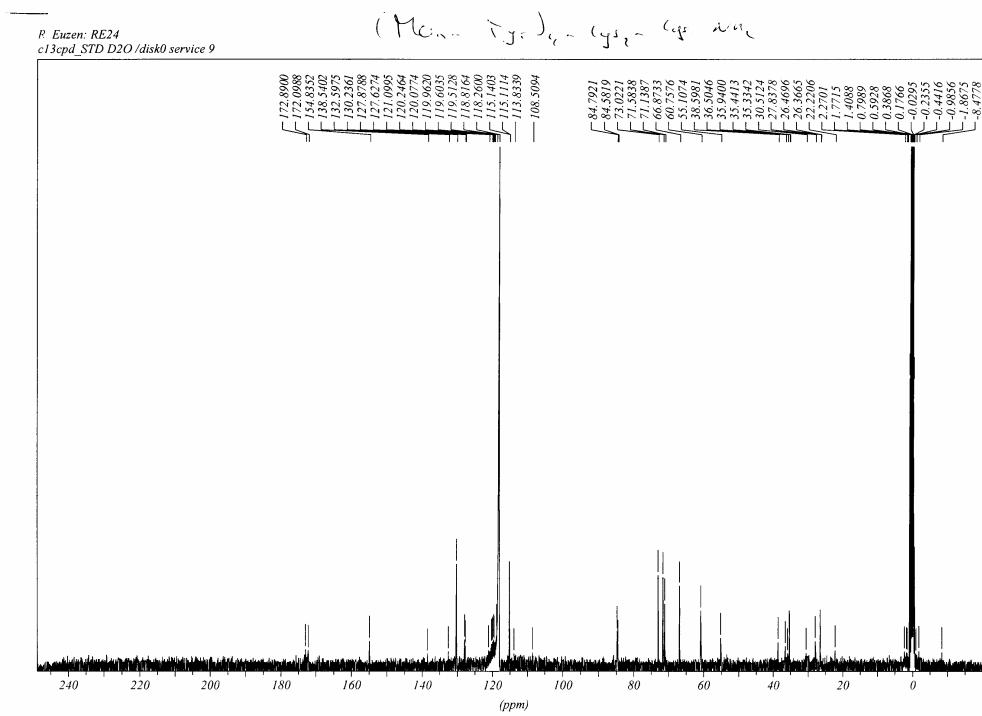
### HPLC analysis of the glycopeptide dendrimer G2e



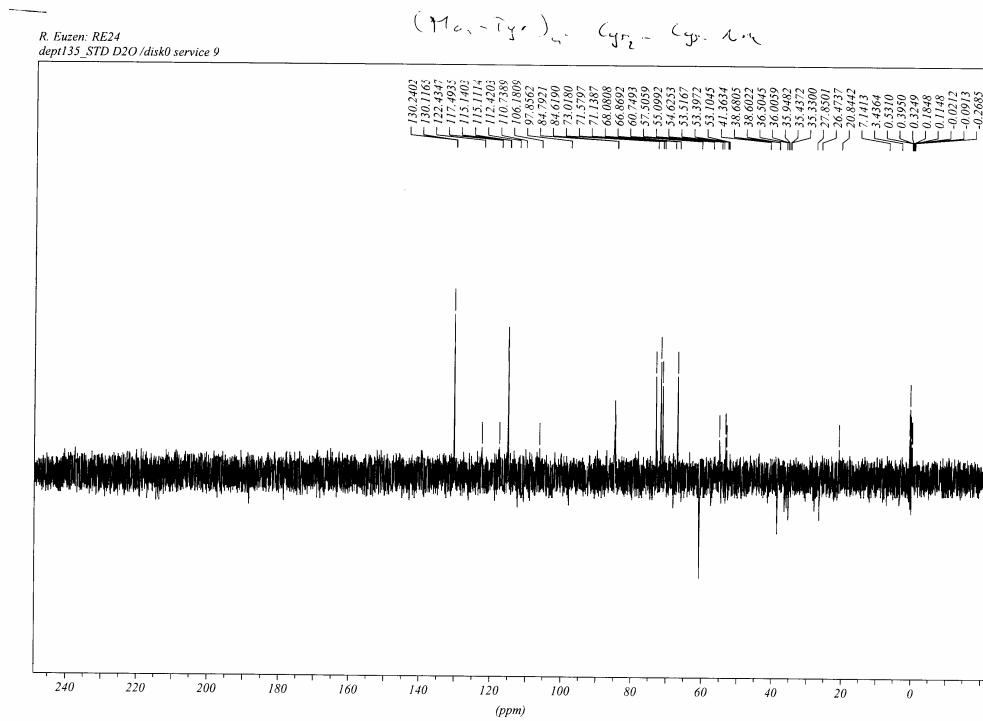
### <sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2e



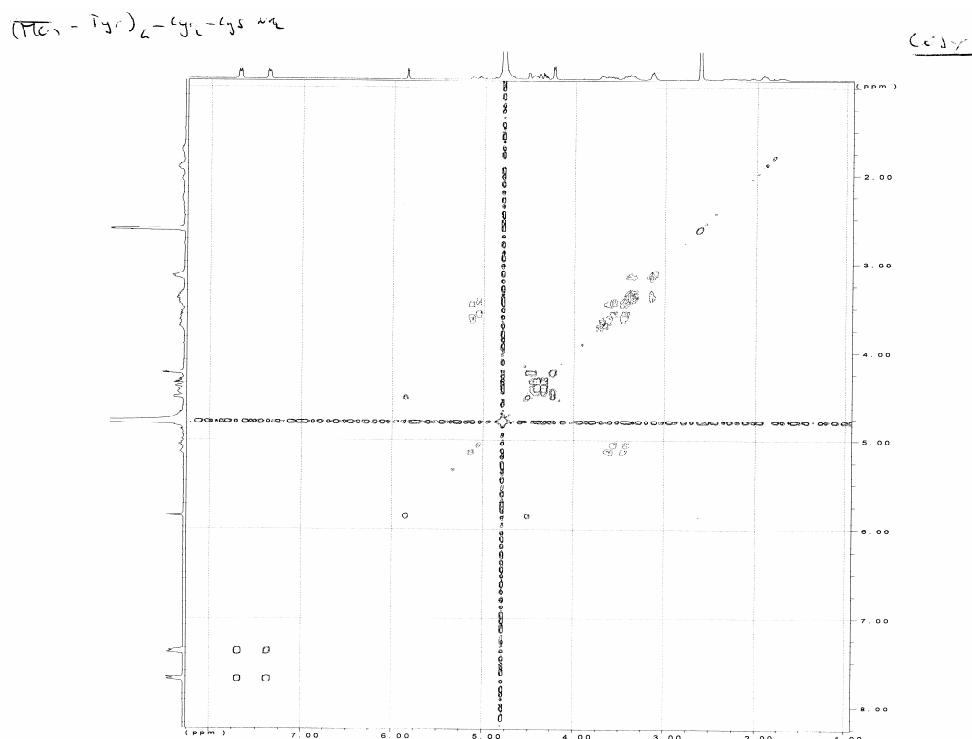
### <sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2e



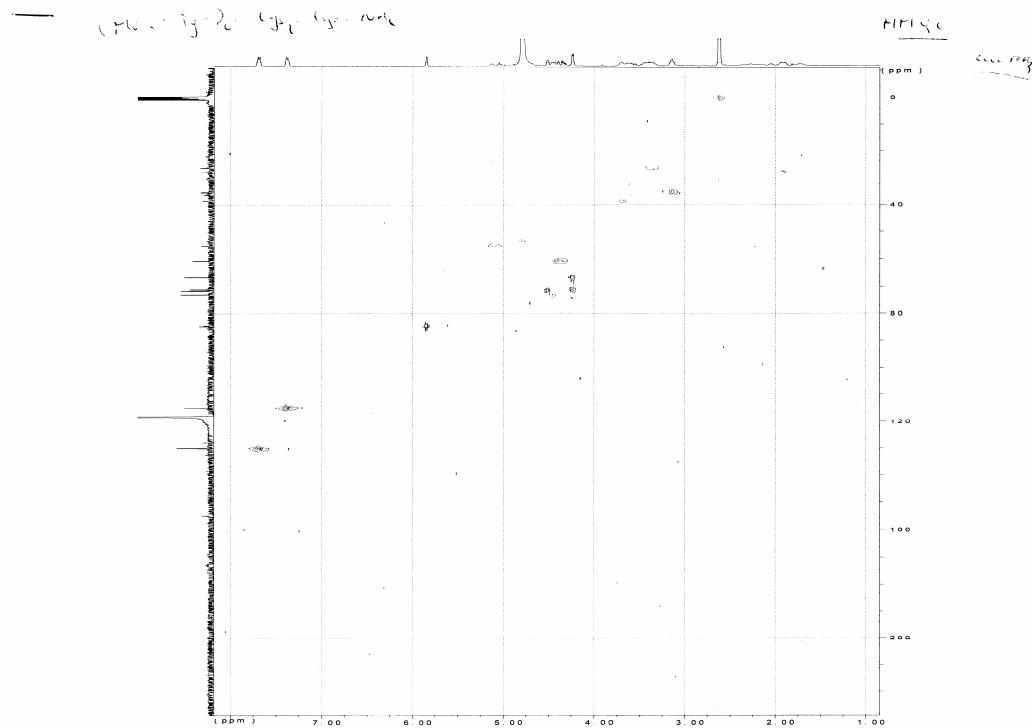
DEPT spectrum of the glycopeptide dendrimer G2e



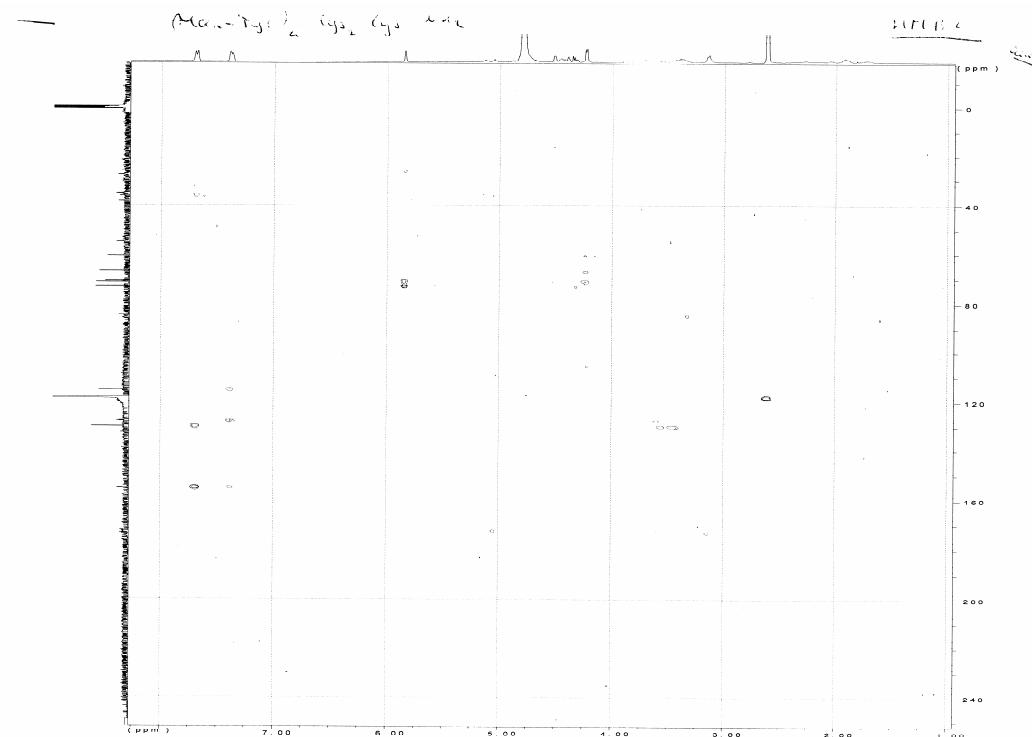
COSY spectrum of the glycopeptide dendrimer G2e



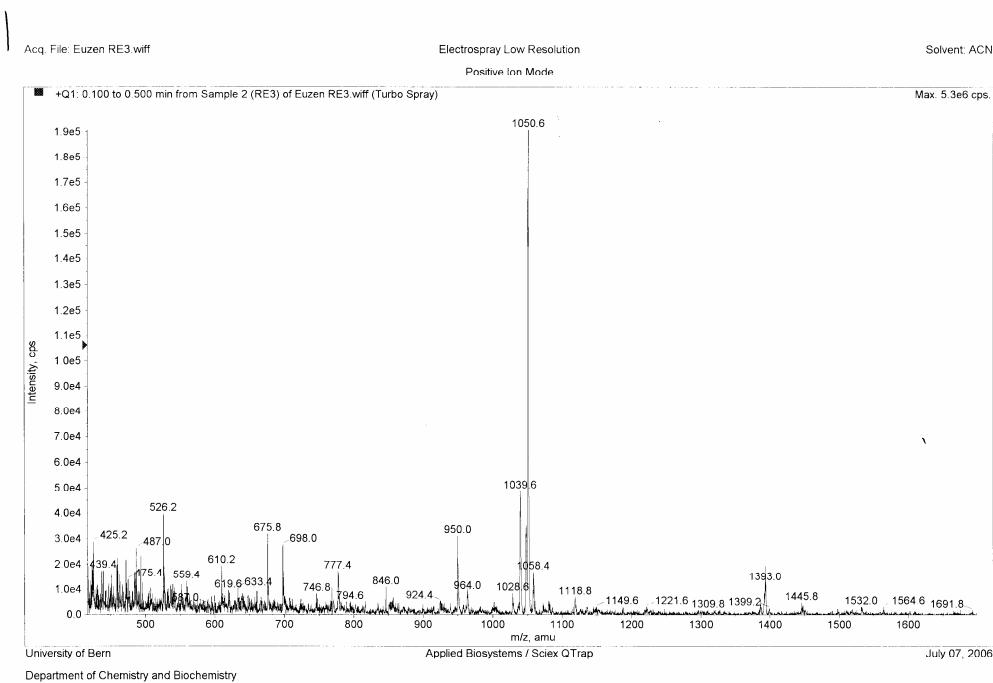
HMQC spectrum of the glycopeptide dendrimer G2e



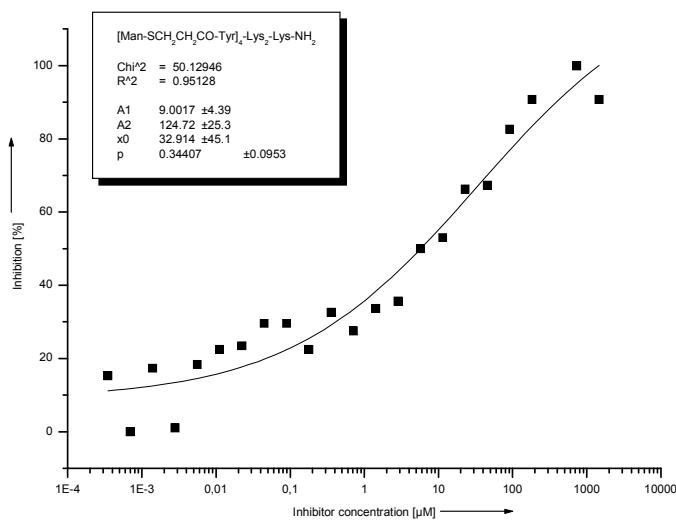
HMBC spectrum of the glycopeptide dendrimer G2e



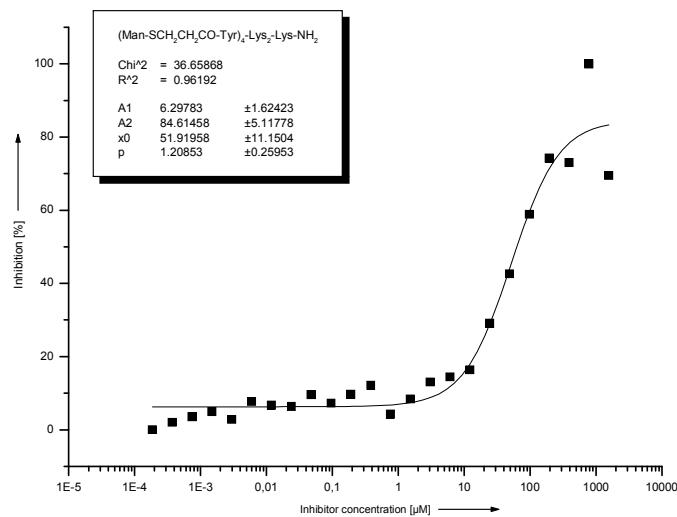
Mass spectrum (ESI<sup>+</sup>) of the glycopeptide dendrimer G2e



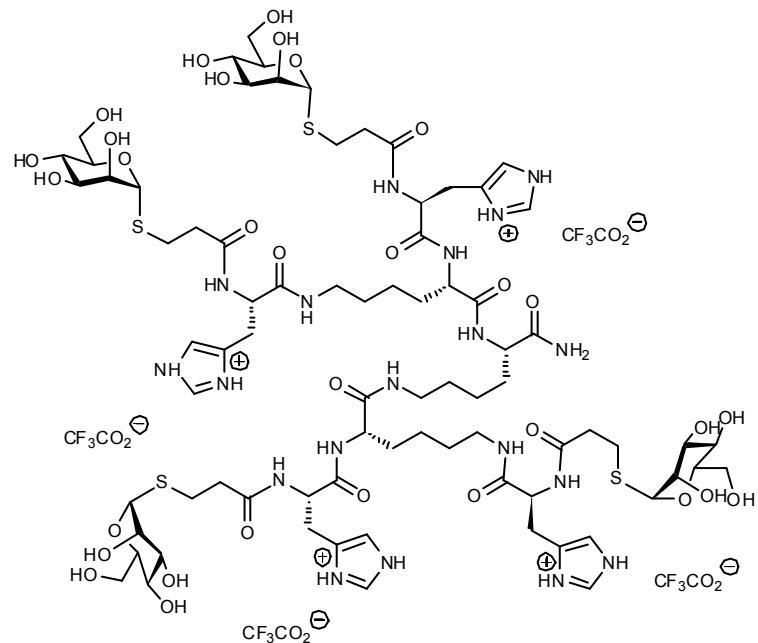
Inhibition curve obtained by standard ELLA for the glycopeptide dendrimer G2e



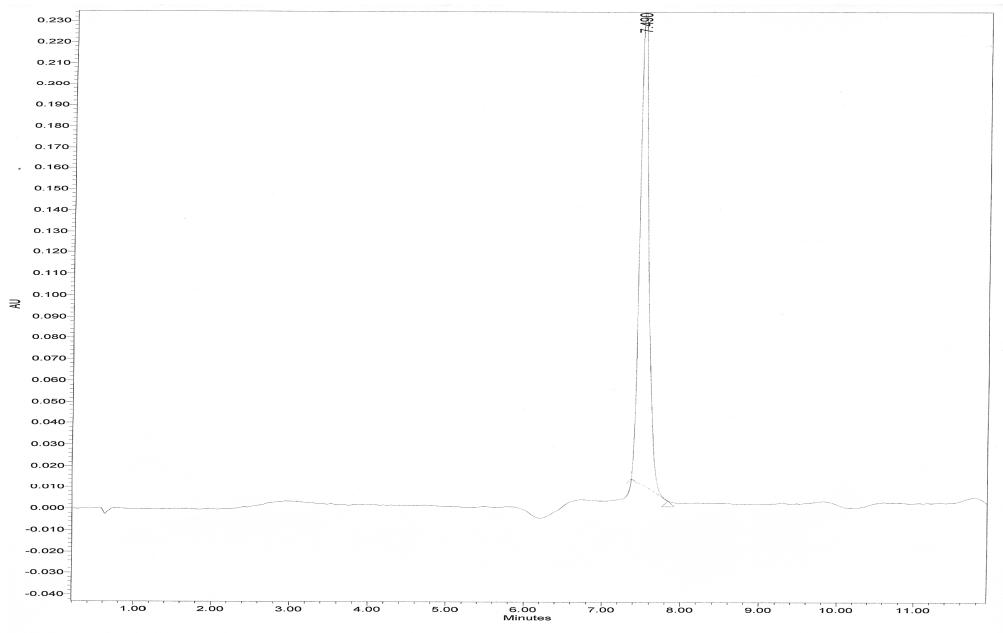
Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2e



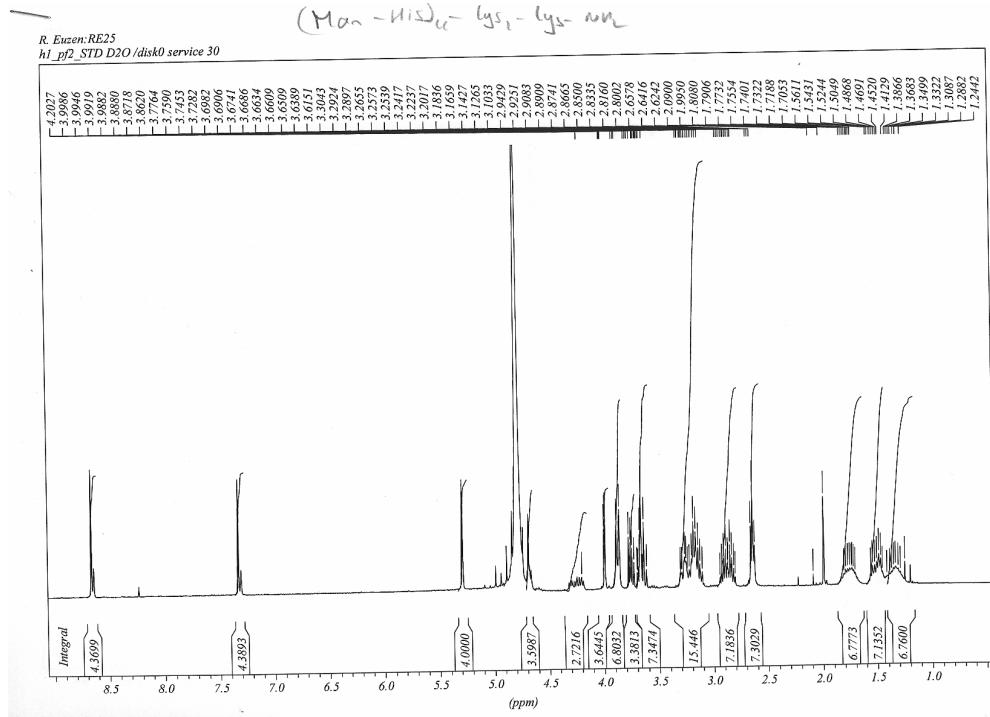
## Glycopeptide dendrimer G2f



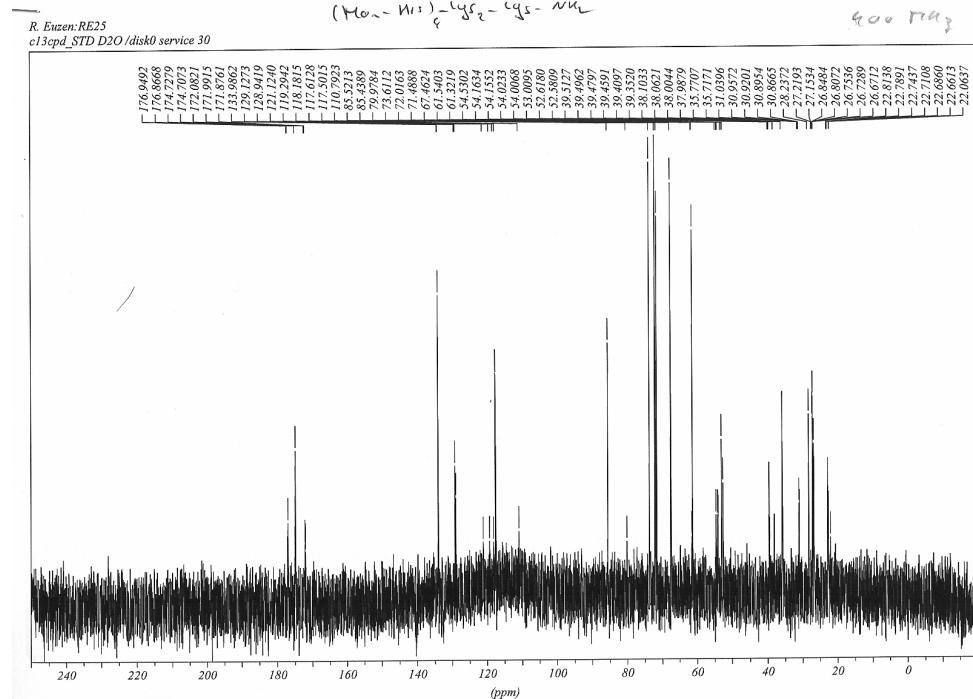
### HPLC analysis of the glycopeptide dendrimer G2f



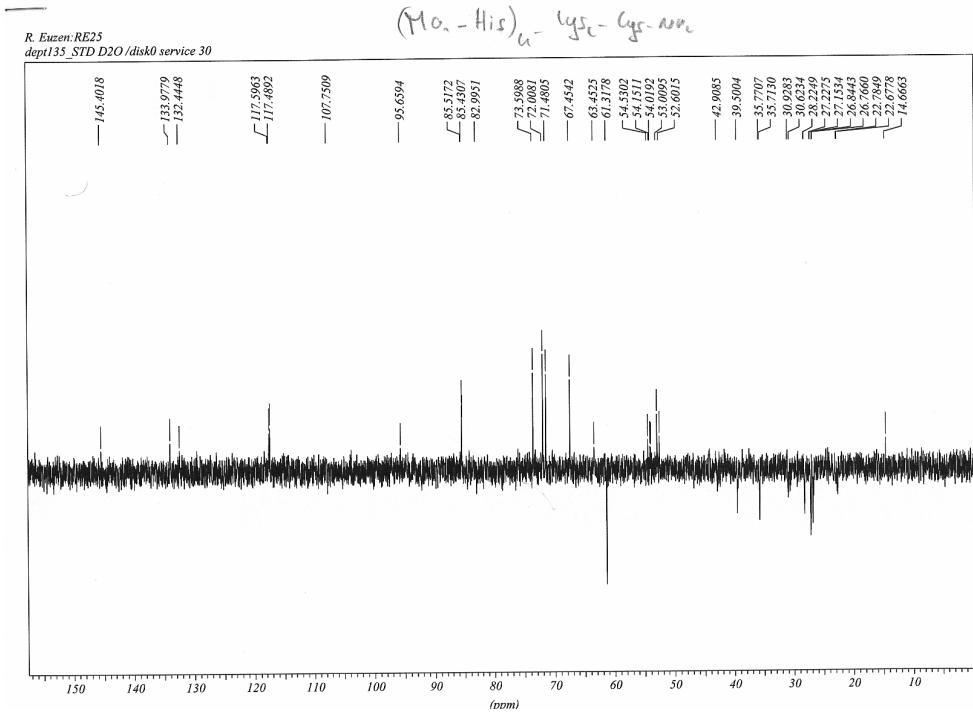
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2f



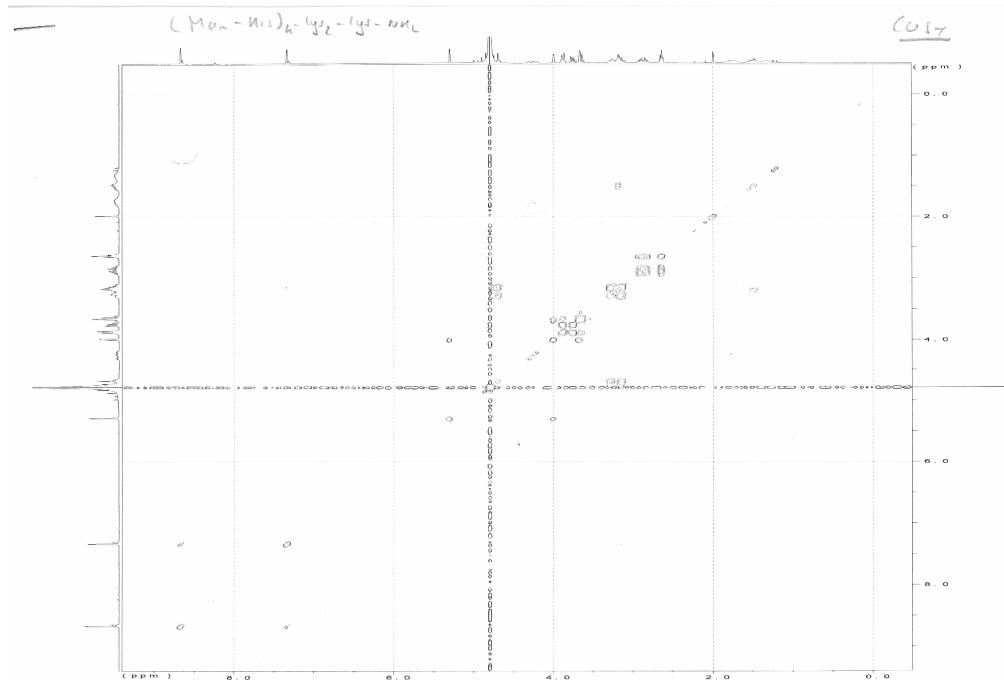
### <sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2f



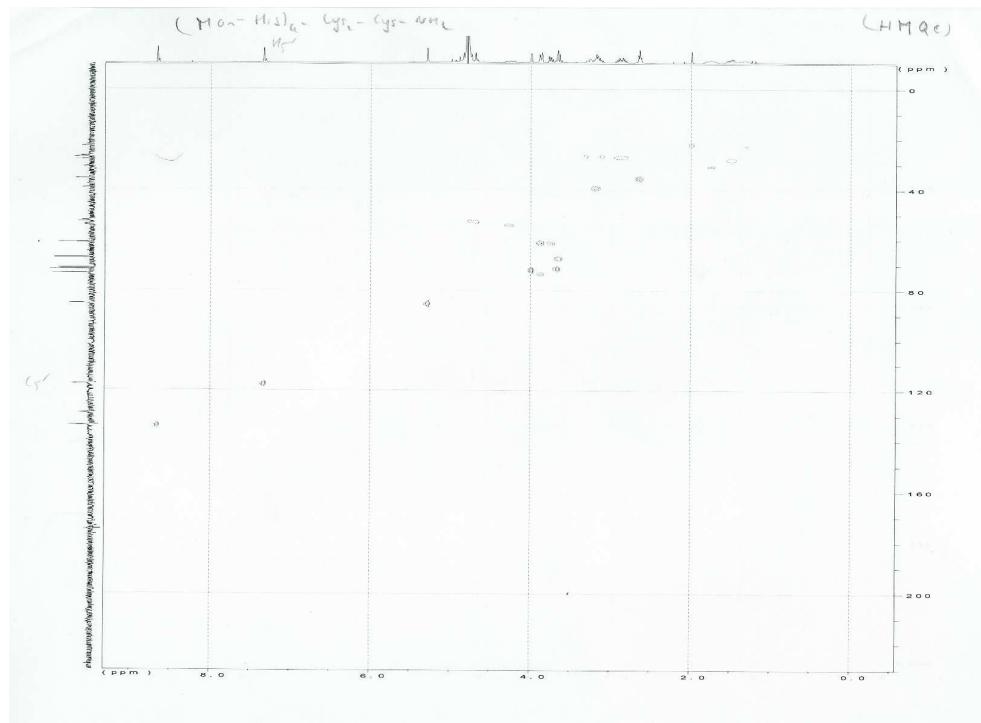
DEPT spectrum of the glycopeptide dendrimer G2f



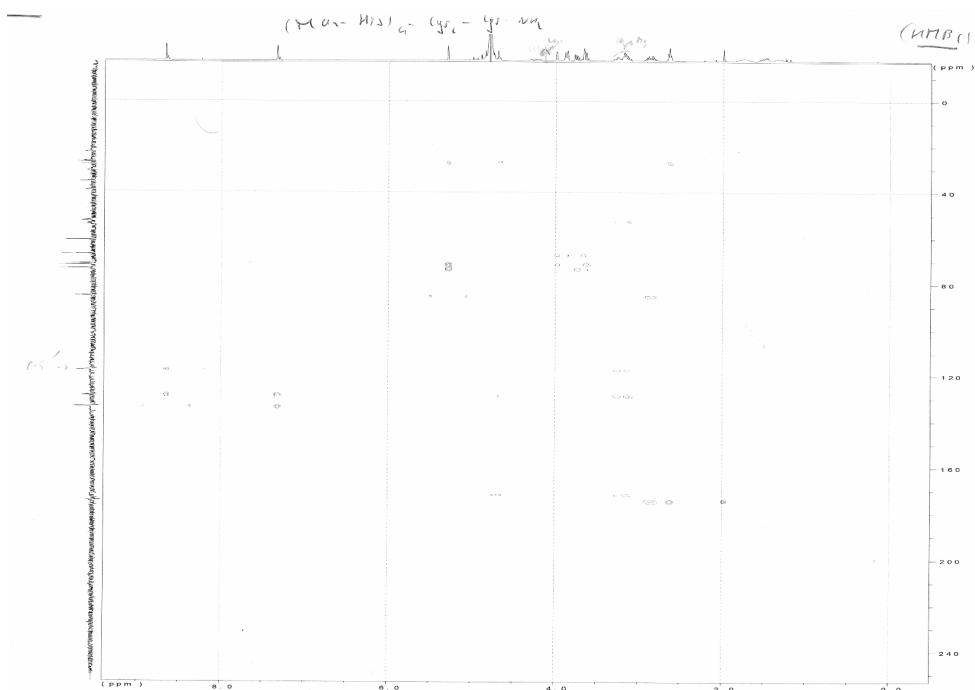
COSY spectrum of the glycopeptide dendrimer G2f



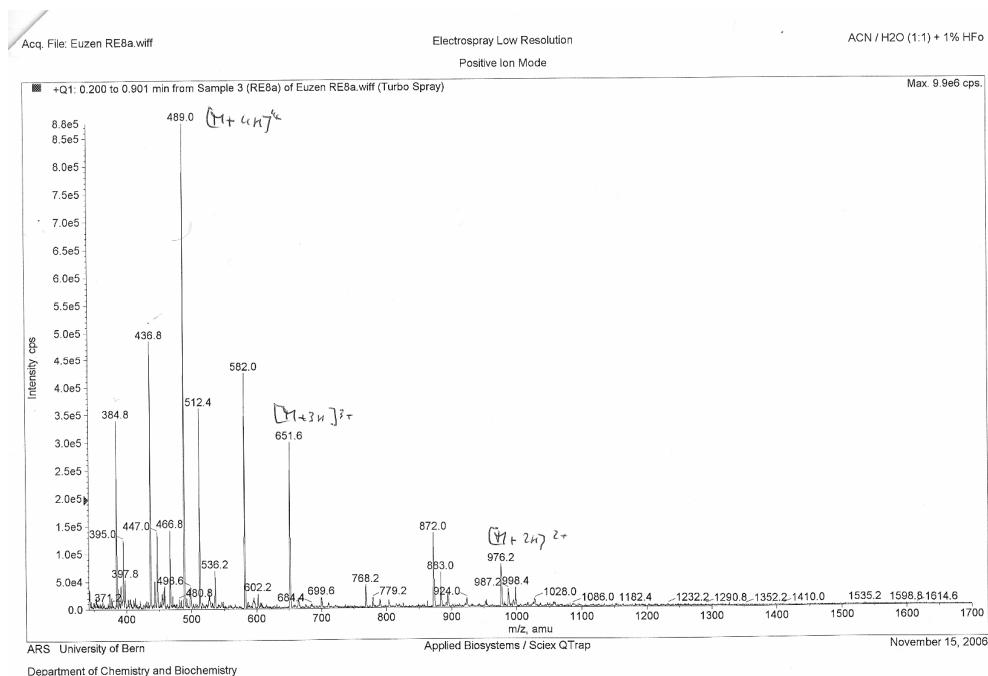
HMQC spectrum of the glycopeptide dendrimer G2f



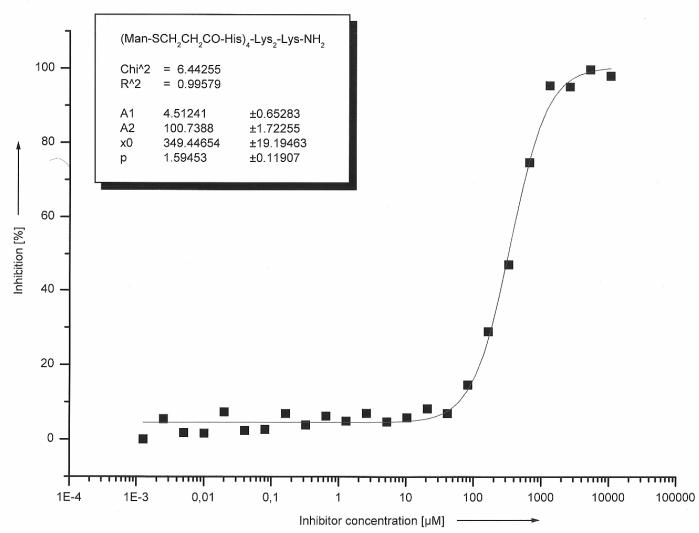
HMBC spectrum of the glycopeptide dendrimer G2f



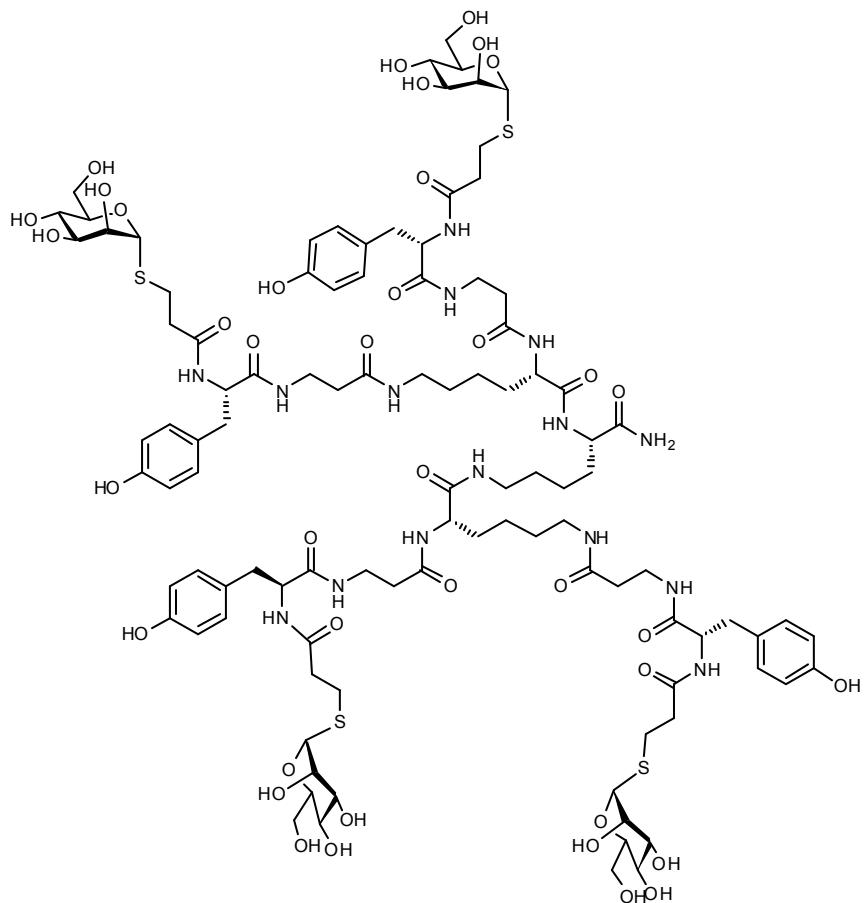
Mass spectrum (ESI<sup>+</sup>) of the glycopeptide dendrimer G2f



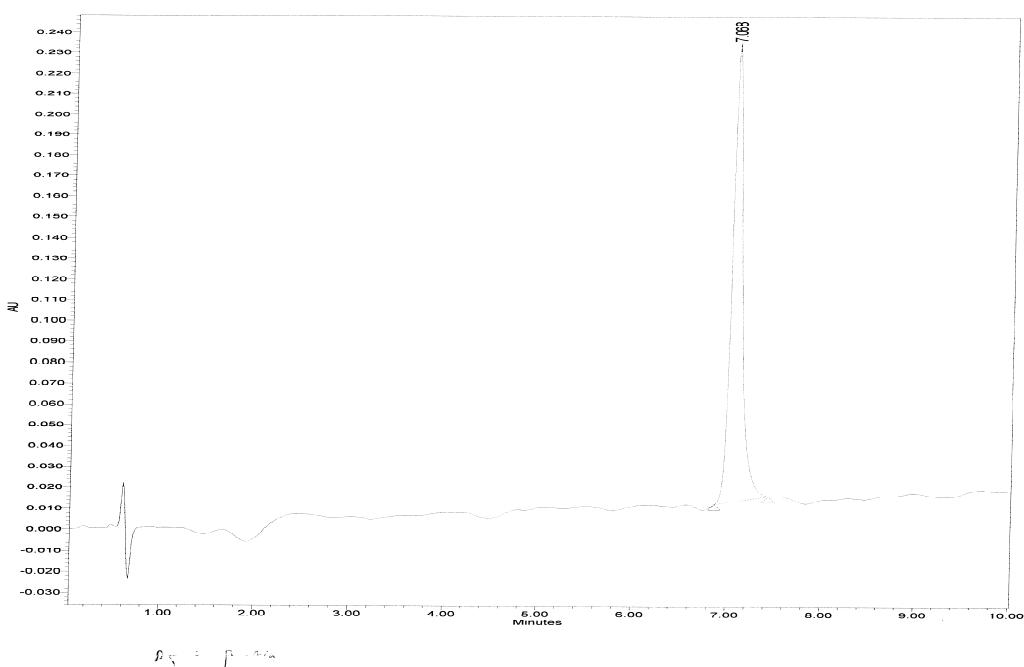
Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2f



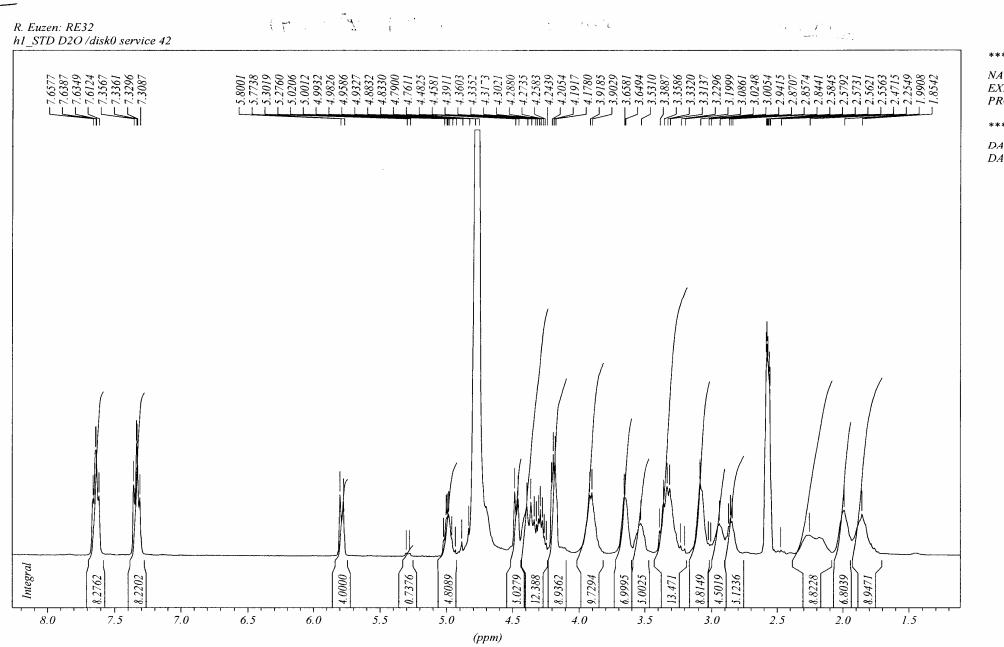
## Glycopeptide dendrimer G2g



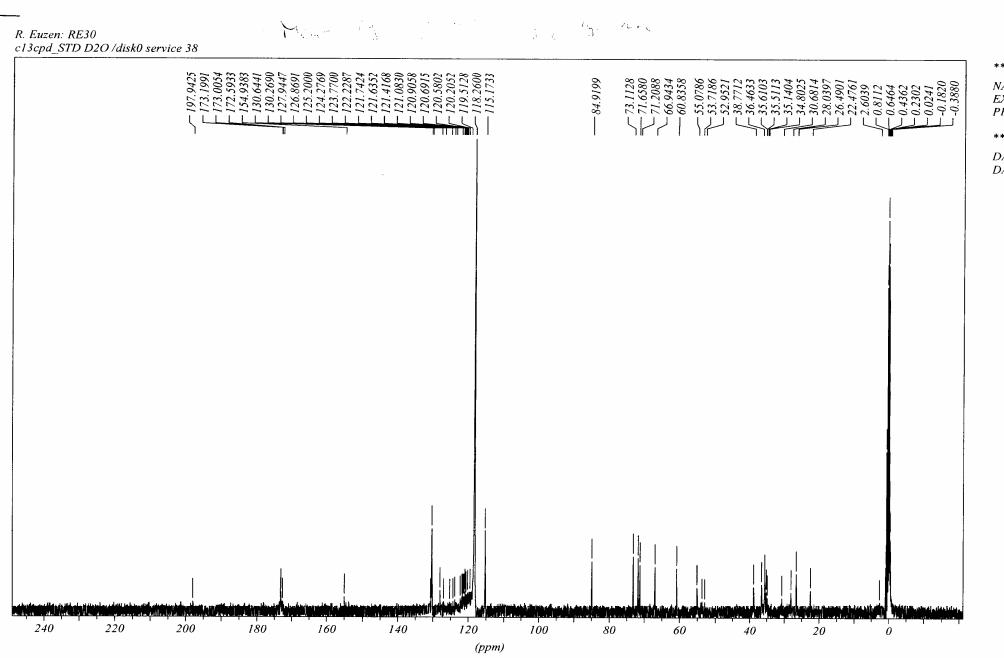
### HPLC analysis of the glycopeptide dendrimer G2g



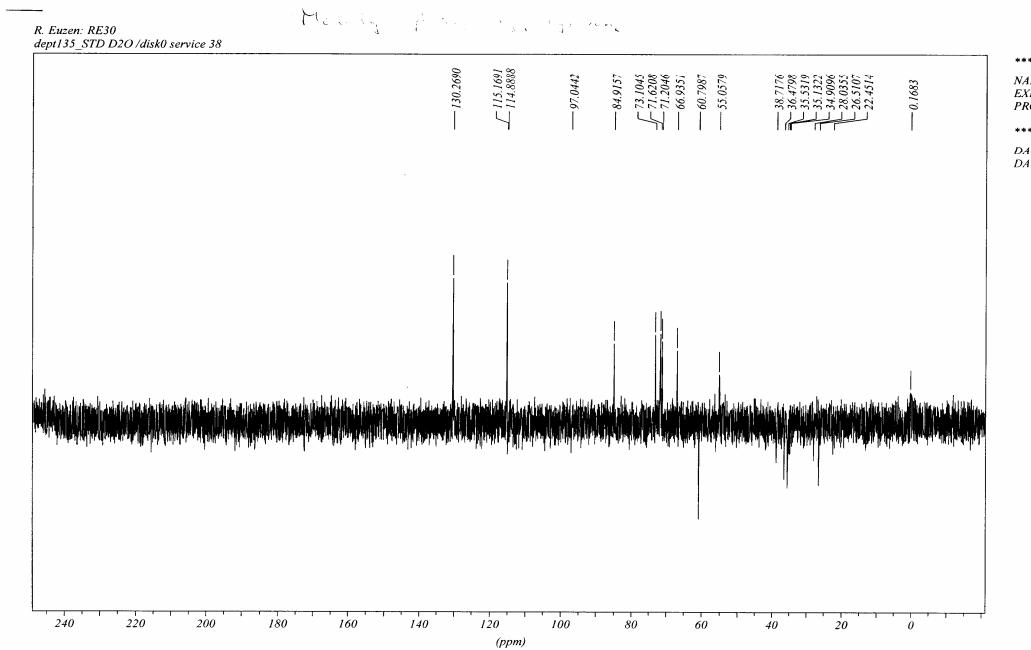
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2g



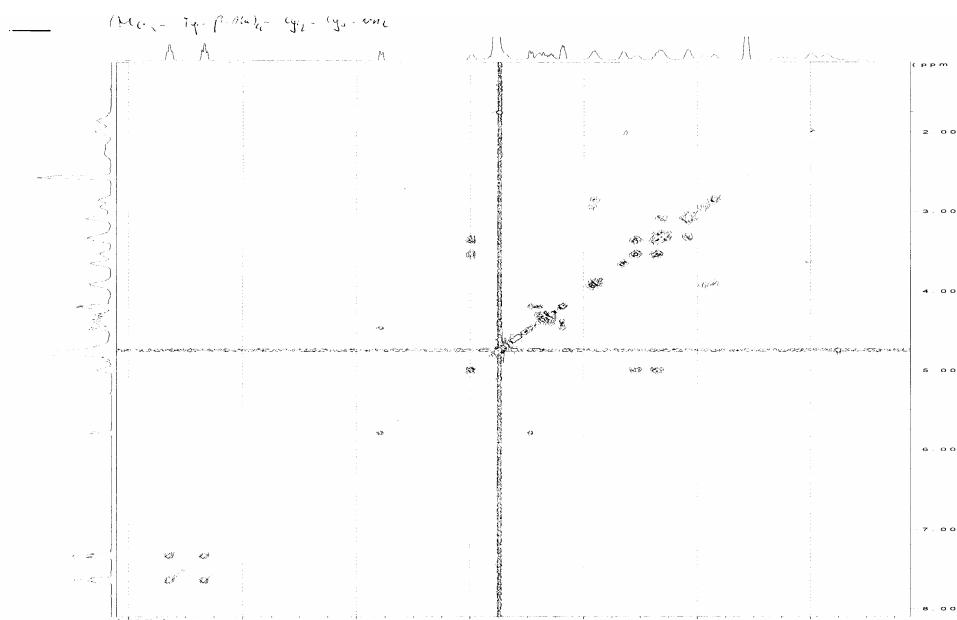
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2g



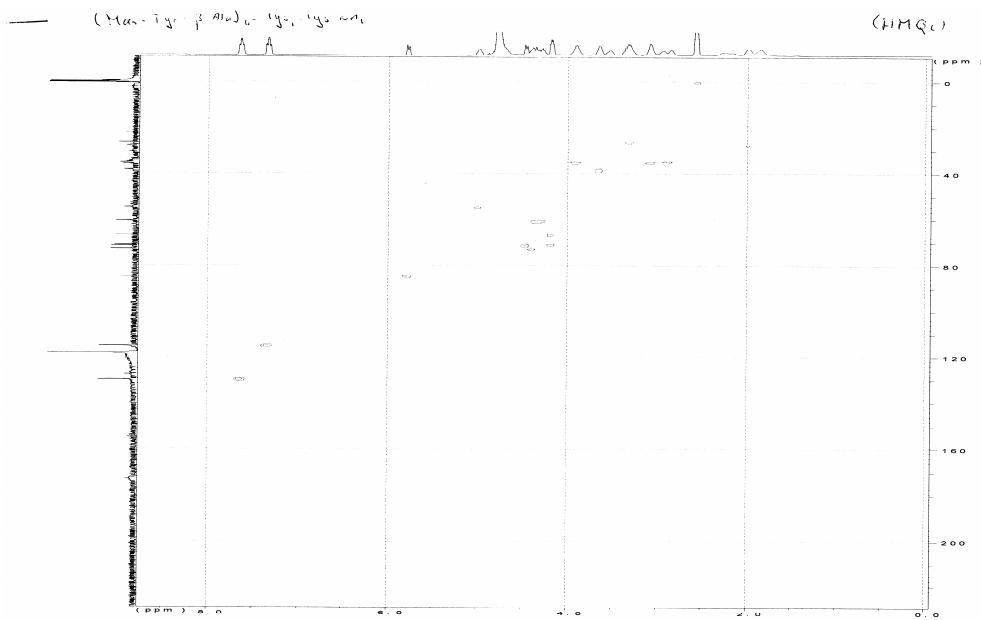
DEPT spectrum of the glycopeptide dendrimer G2g



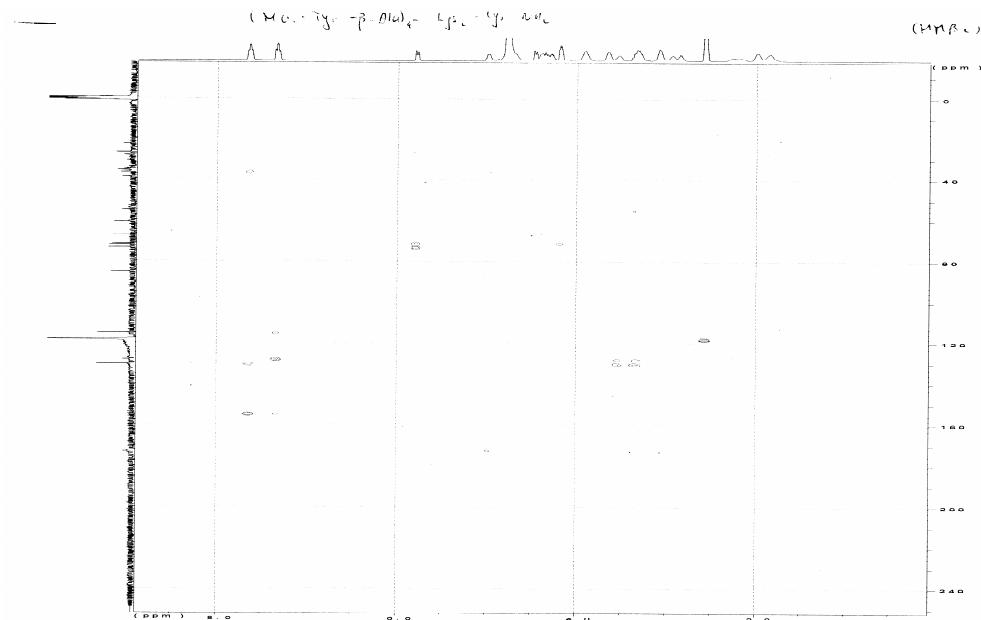
COSY spectrum of the glycopeptide dendrimer G2g



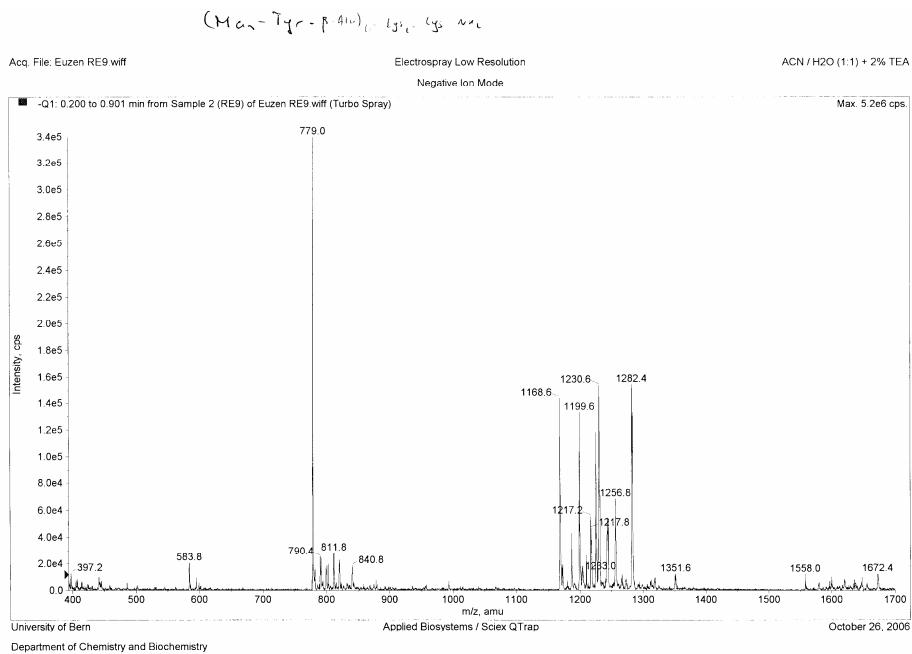
HMQC spectrum of the glycopeptide dendrimer G2g



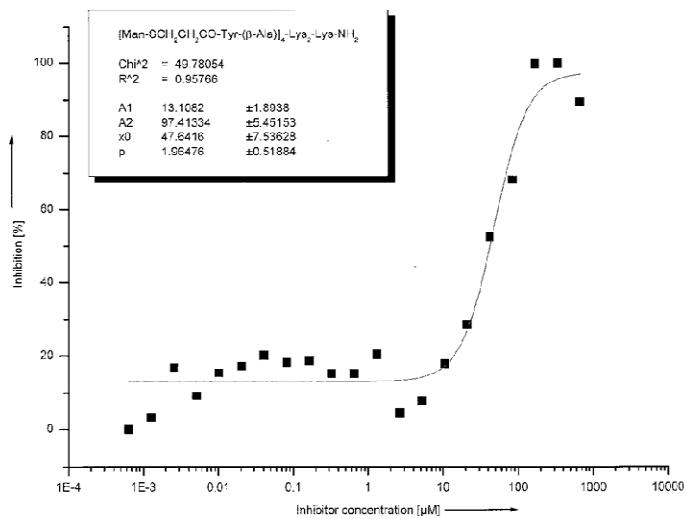
HMBC spectrum of the glycopeptide dendrimer G2g



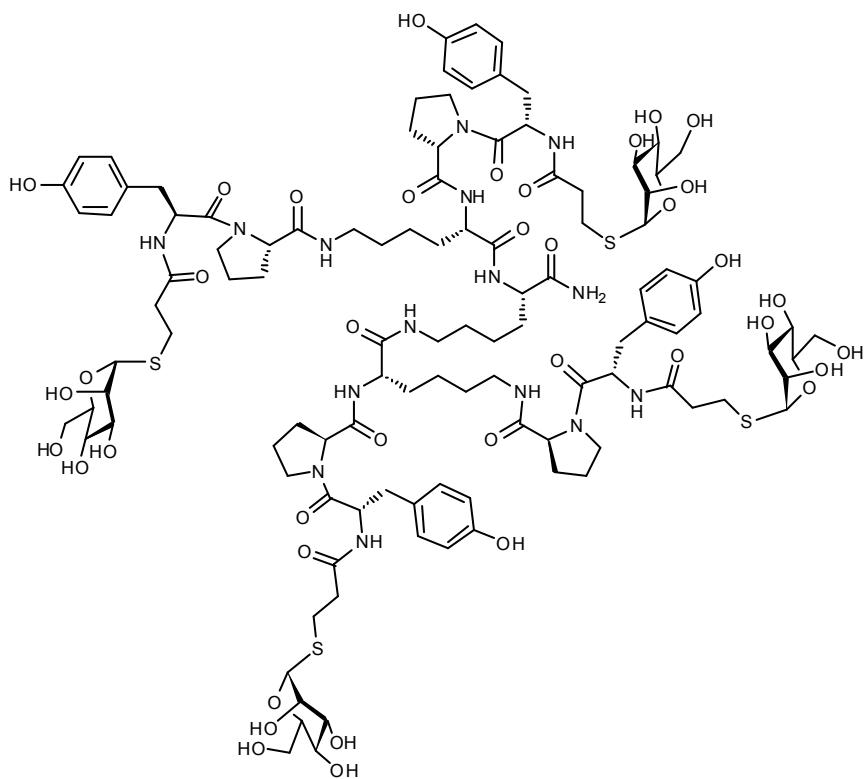
**Mass spectrum (ESI<sup>-</sup>) of the glycopeptide dendrimer G2g**



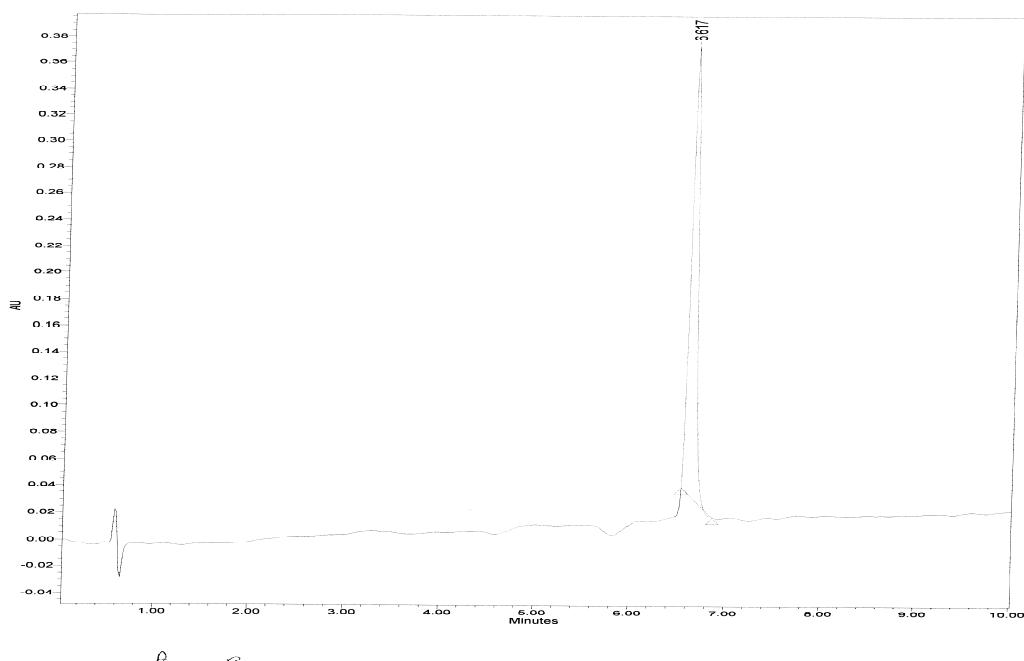
**Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2g**



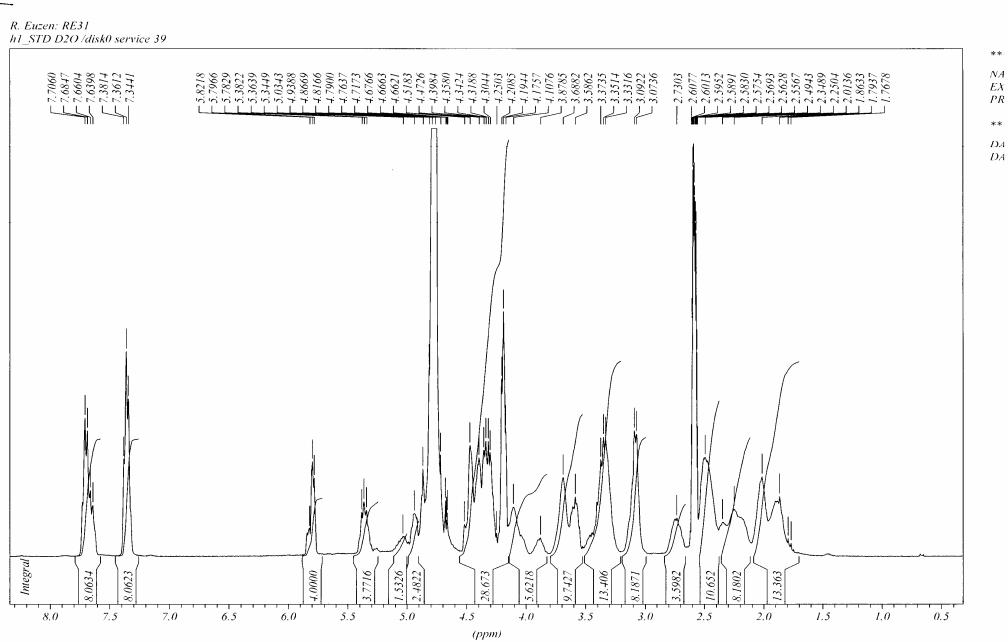
## Glycopeptide dendrimer G2h



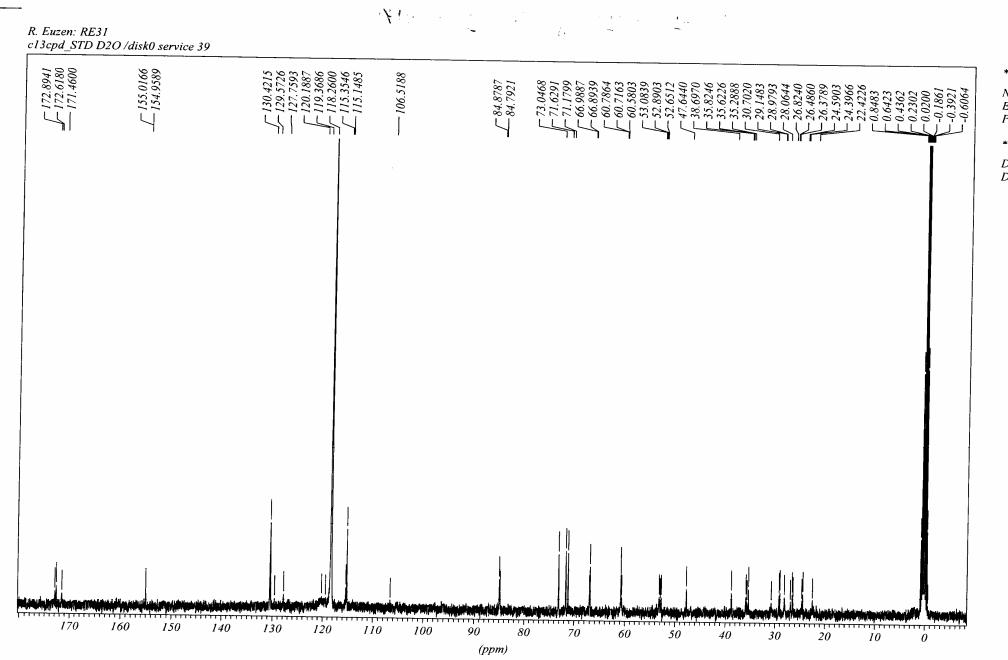
### HPLC analysis of the glycopeptide dendrimer G2h



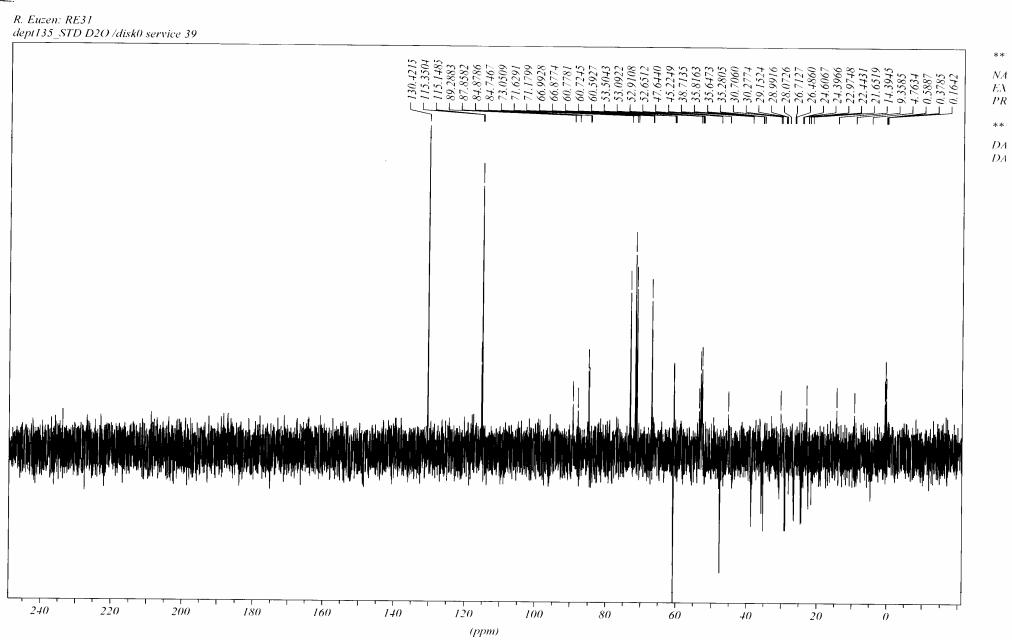
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2h



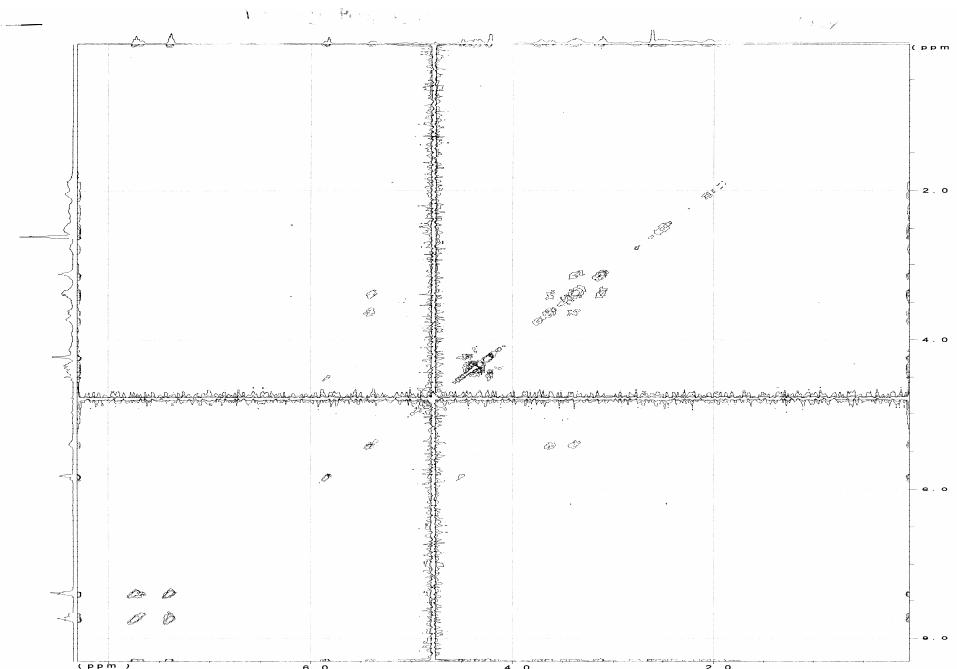
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2h



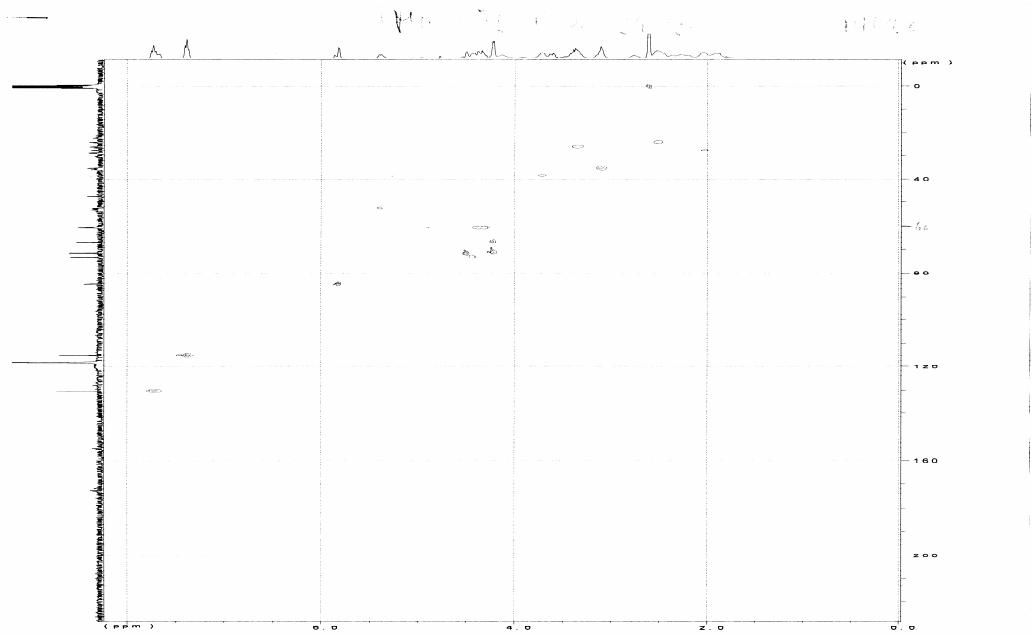
### DEPT spectrum of the glycopeptide dendrimer G2h



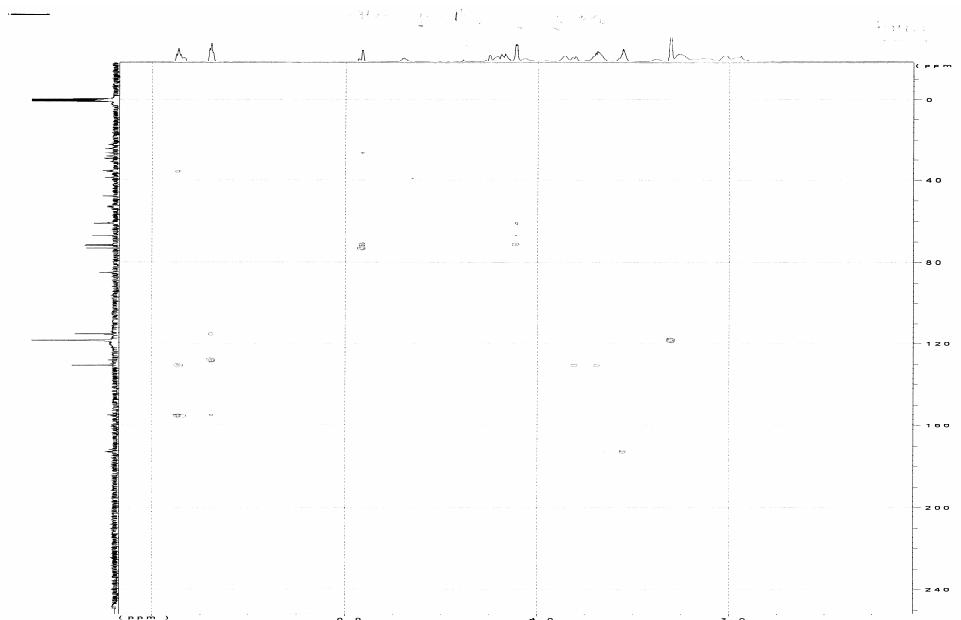
## COSY spectrum of the glycopeptide dendrimer G2h



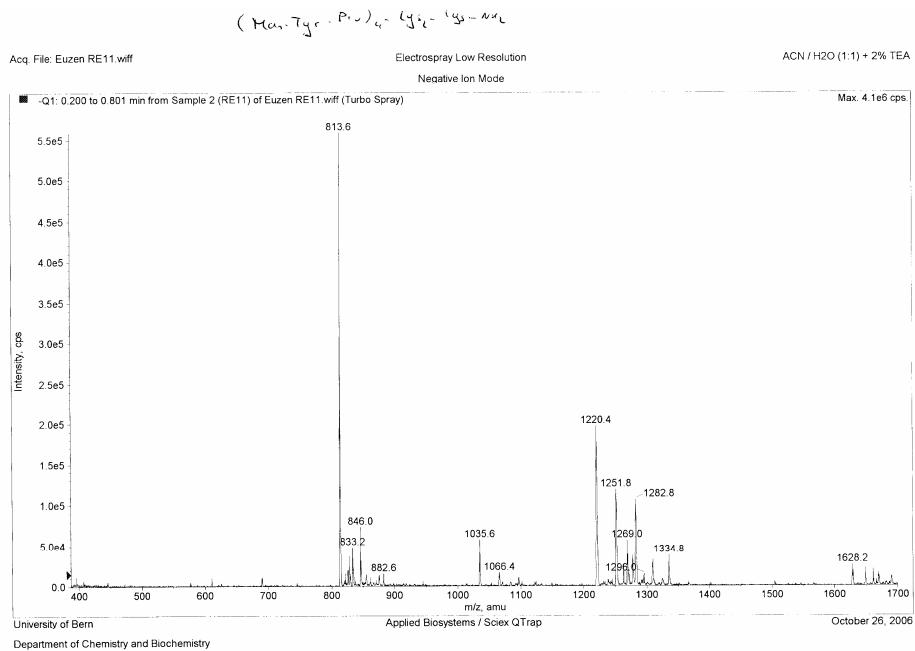
HMQC spectrum of the glycopeptide dendrimer G2h



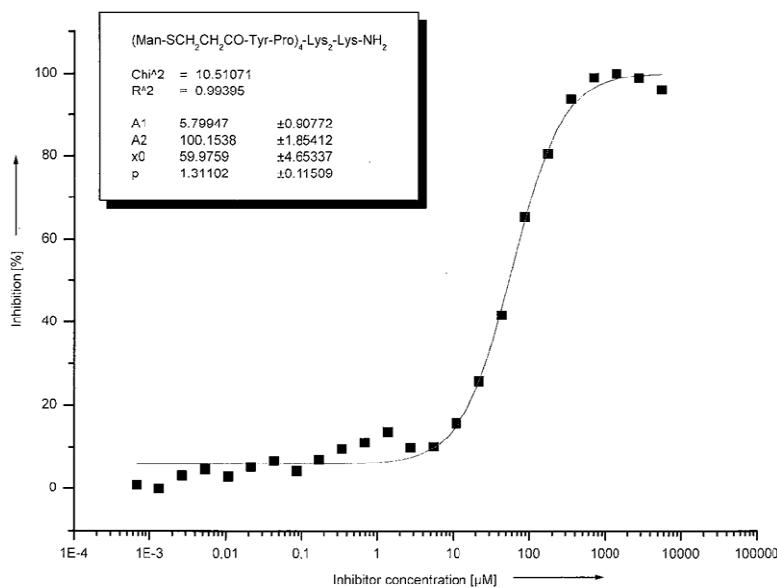
HMBC spectrum of the glycopeptide dendrimer G2h



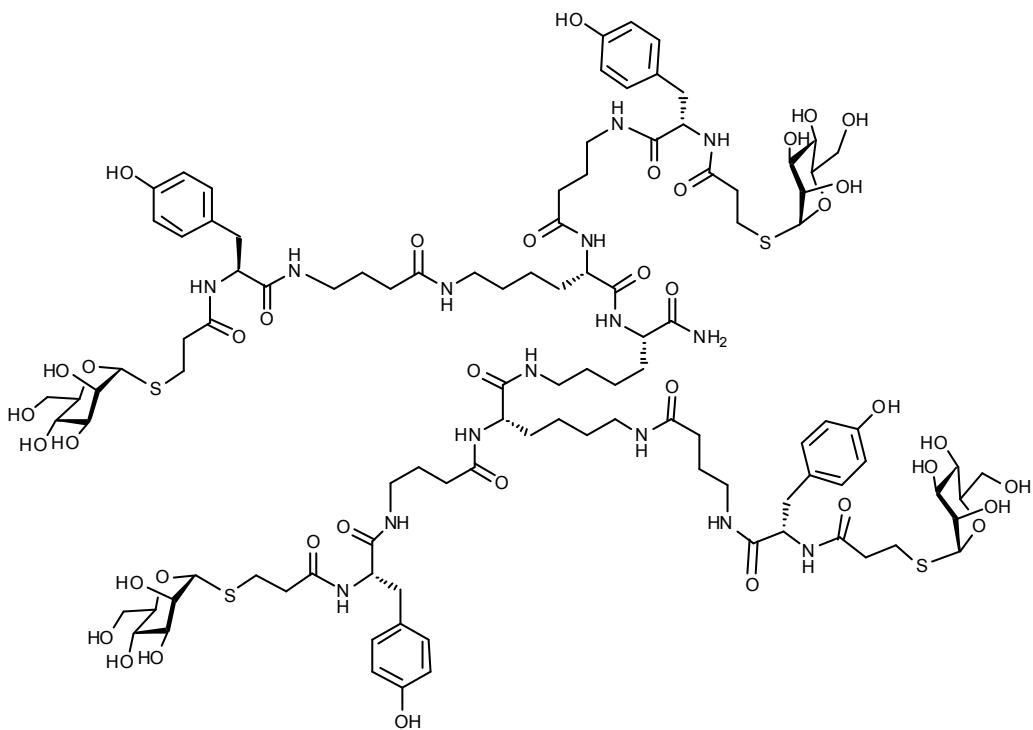
**Mass spectrum (ESI<sup>-</sup>) of the glycopeptide dendrimer G2h**



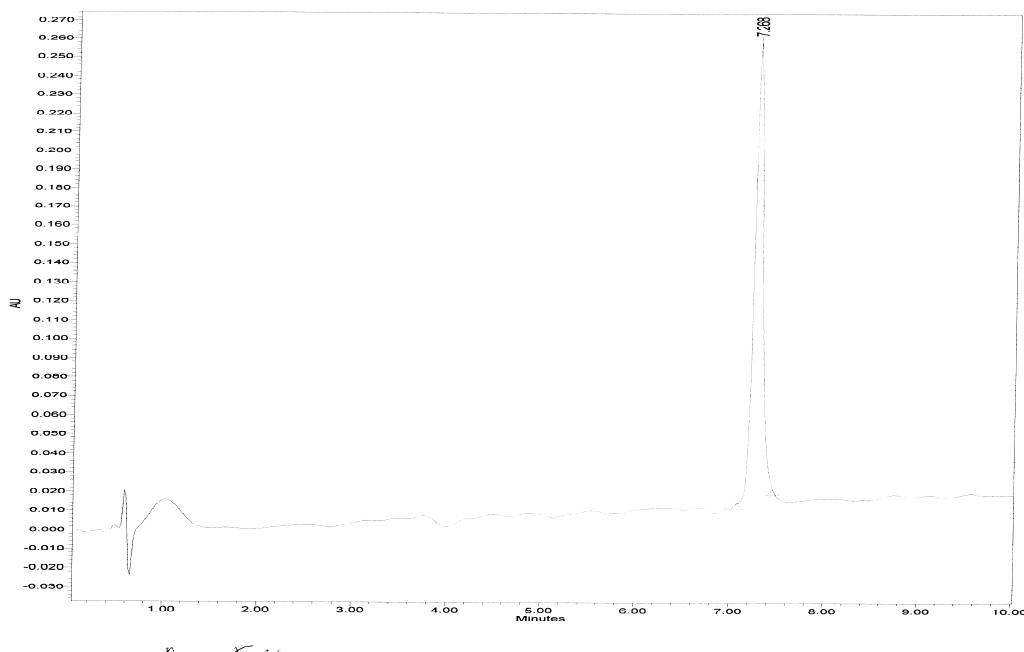
**Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2h**



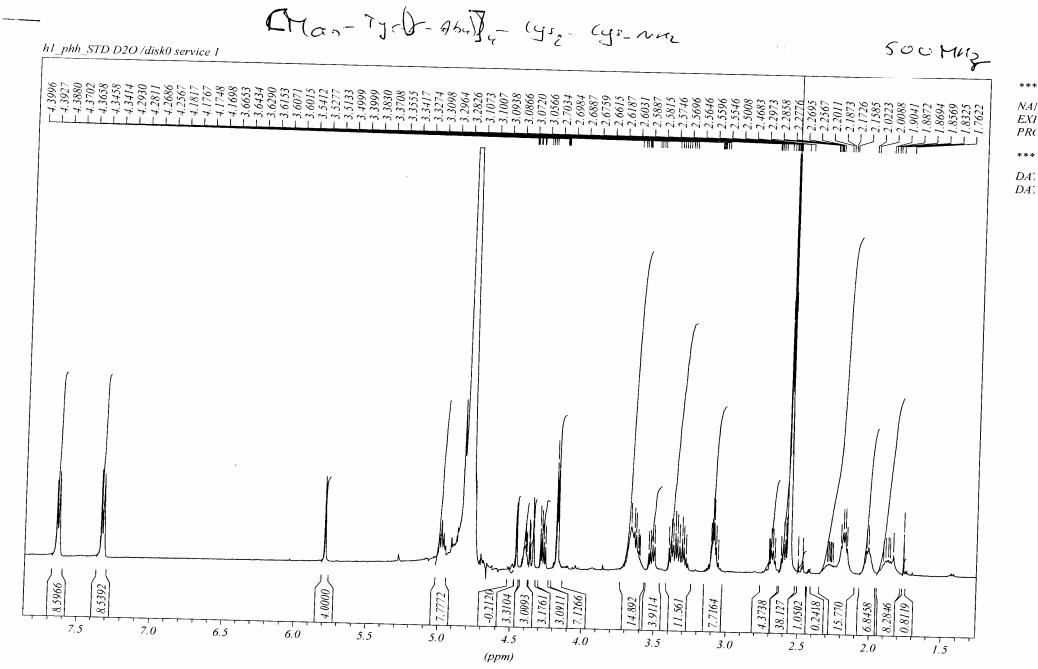
## Glycopeptide dendrimer G2i



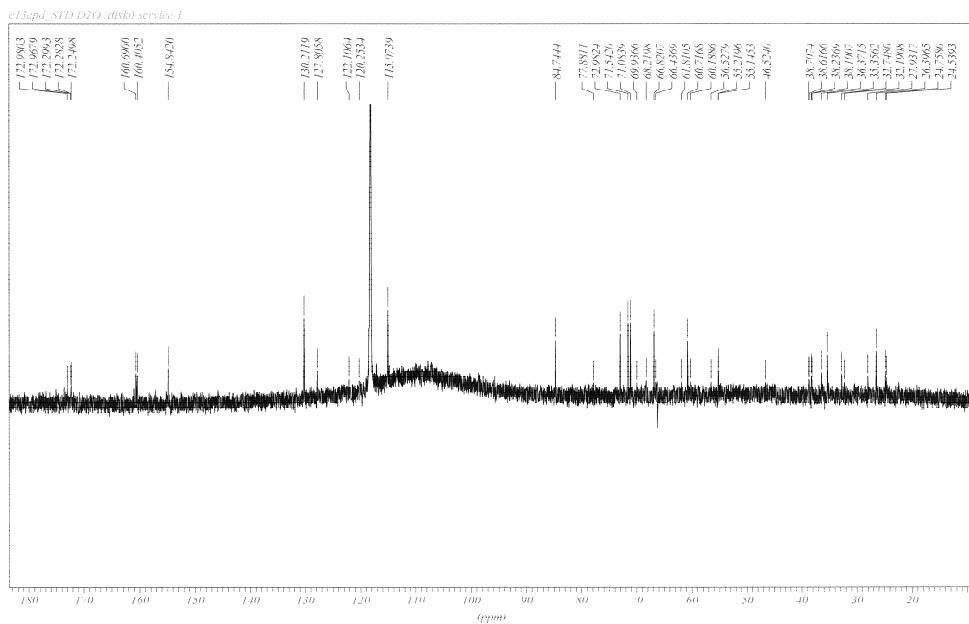
### HPLC analysis of the glycopeptide dendrimer G2i



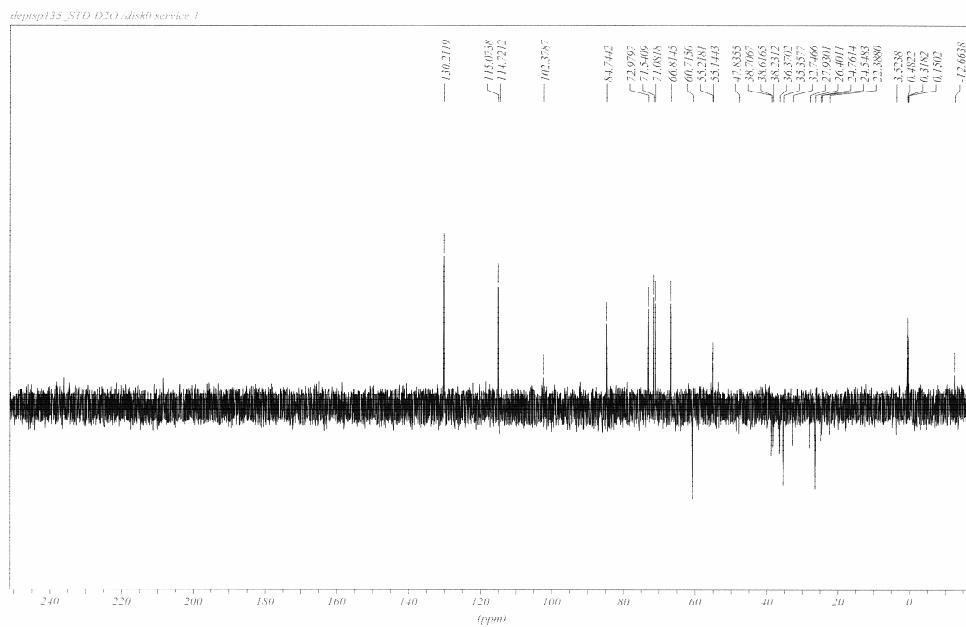
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2i



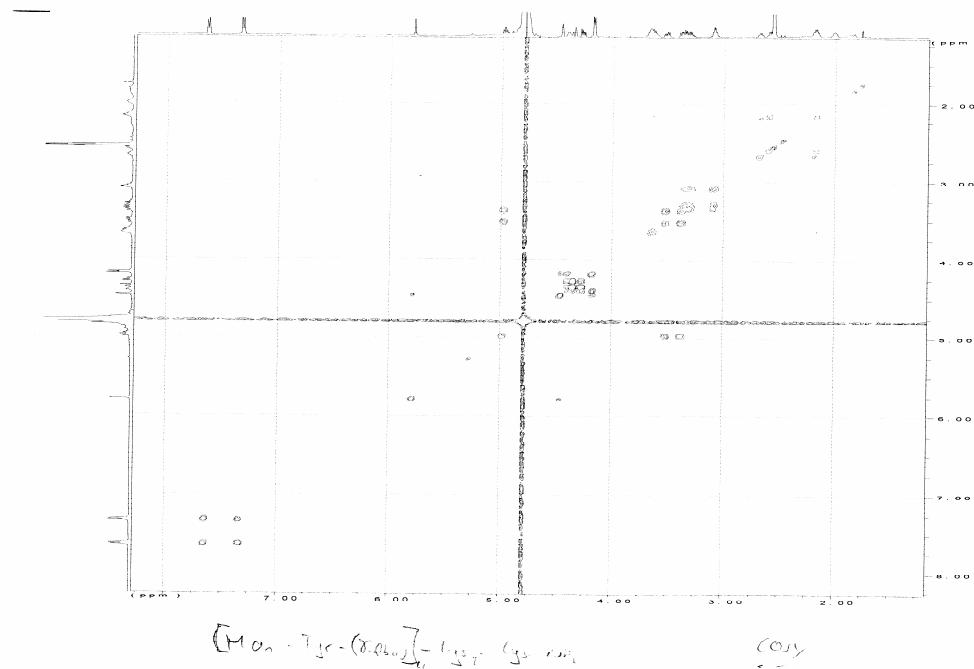
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2i



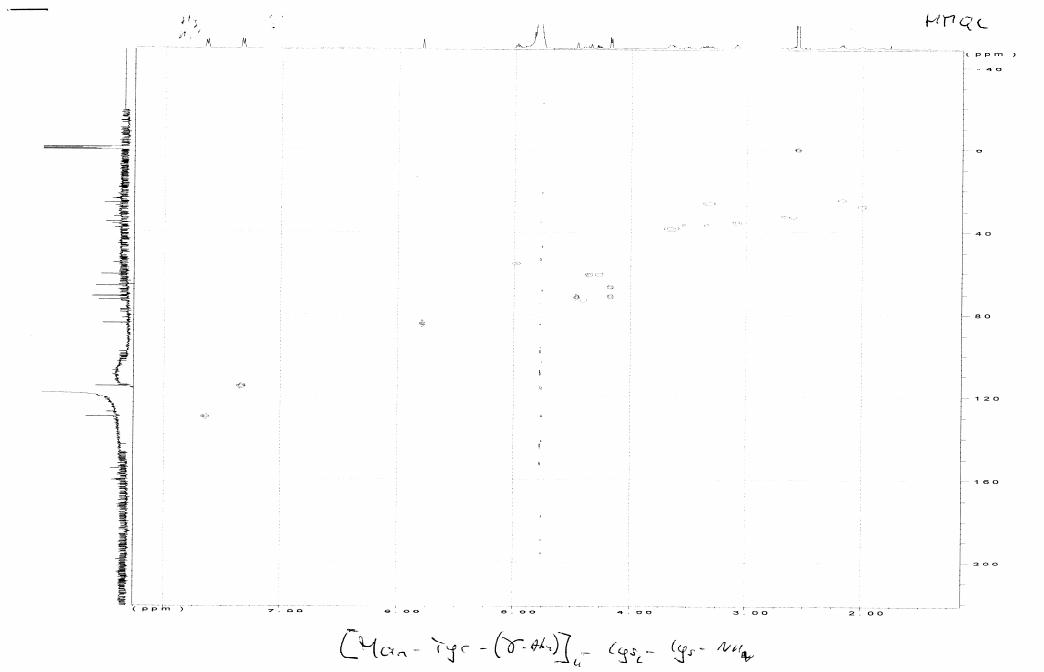
### DEPT spectrum of the glycopeptide dendrimer G2i



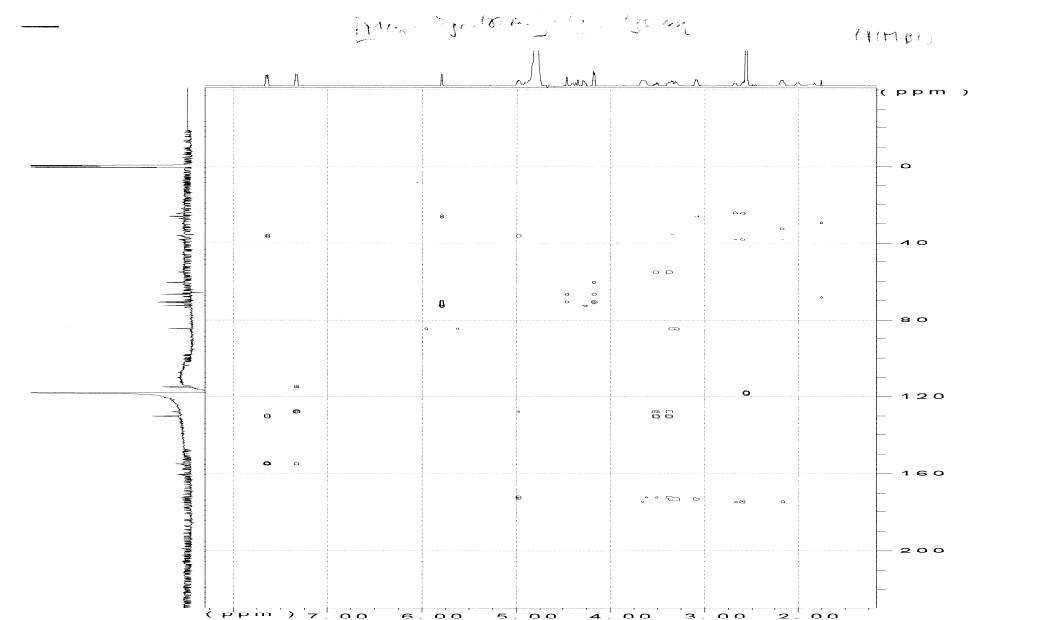
## COSY spectrum of the glycopeptide dendrimer G2i



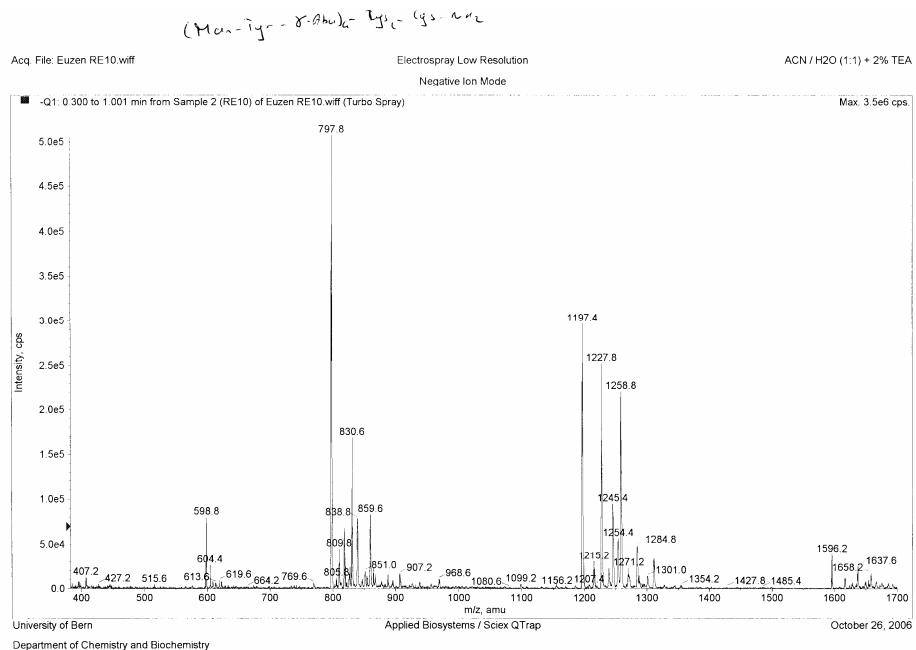
HMQC spectrum of the glycopeptide dendrimer G2i



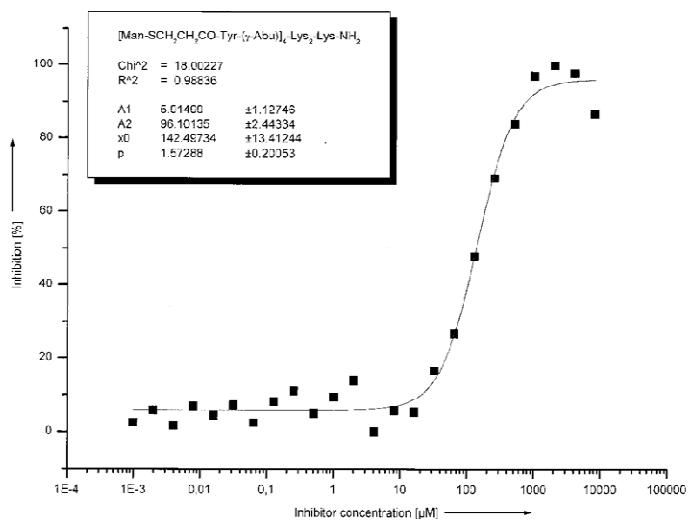
HMBC spectrum of the glycopeptide dendrimer G2i



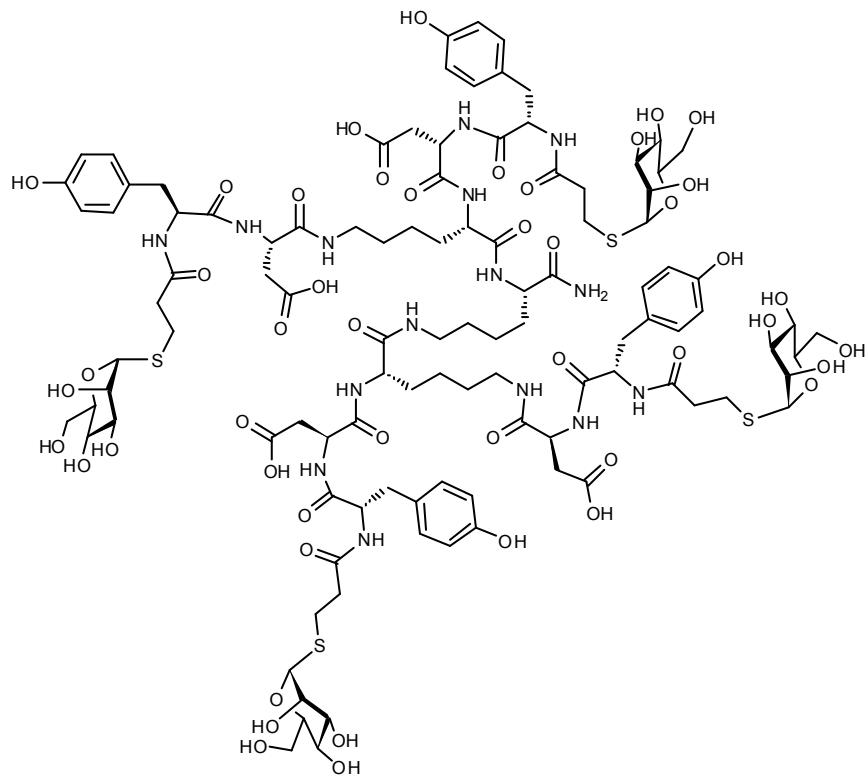
### Mass spectrum (ESI<sup>-</sup>) of the glycopeptide dendrimer G2i



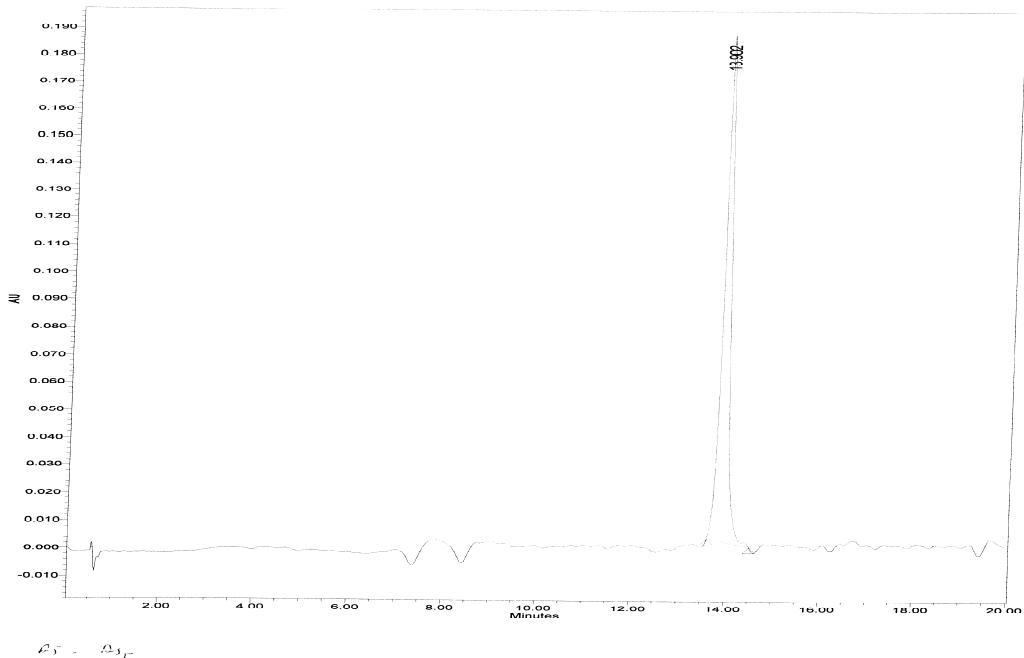
### Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2i



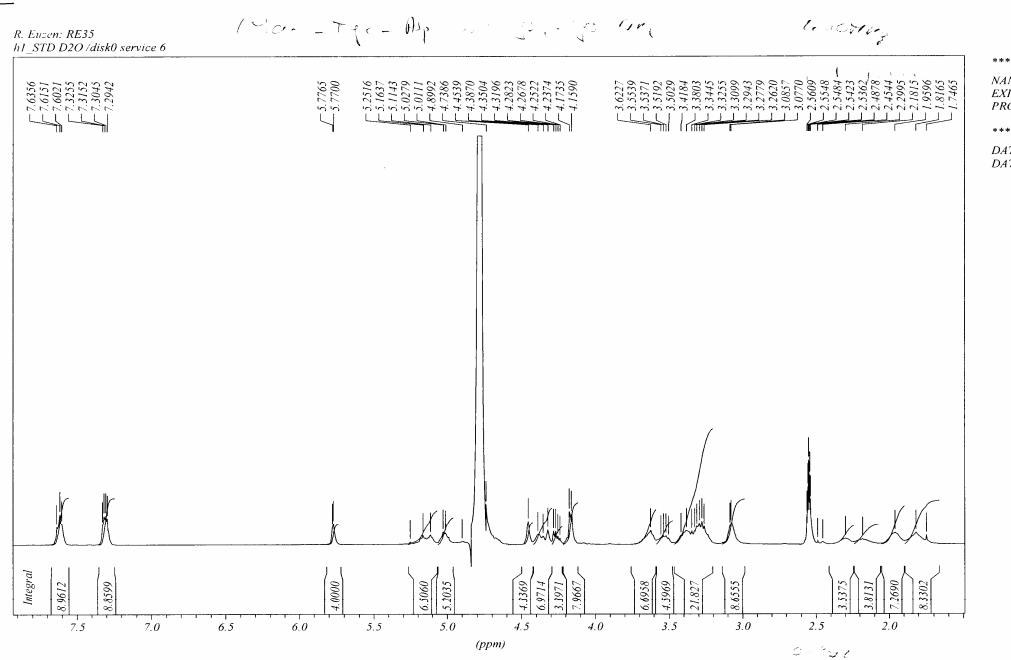
## Glycopeptide dendrimer G2j



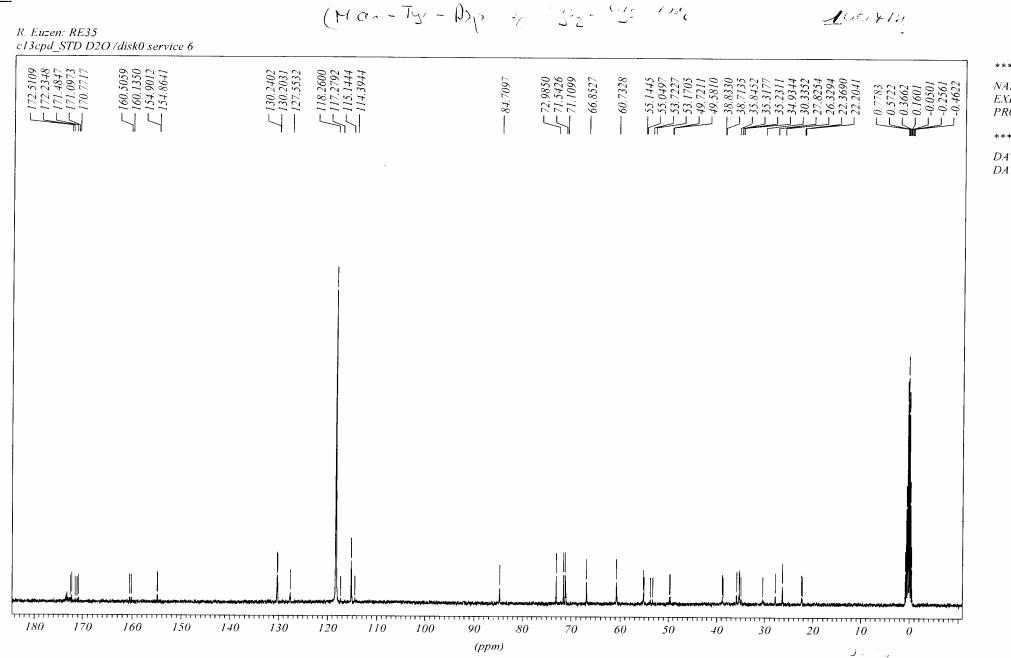
### HPLC analysis of the glycopeptide dendrimer G2j



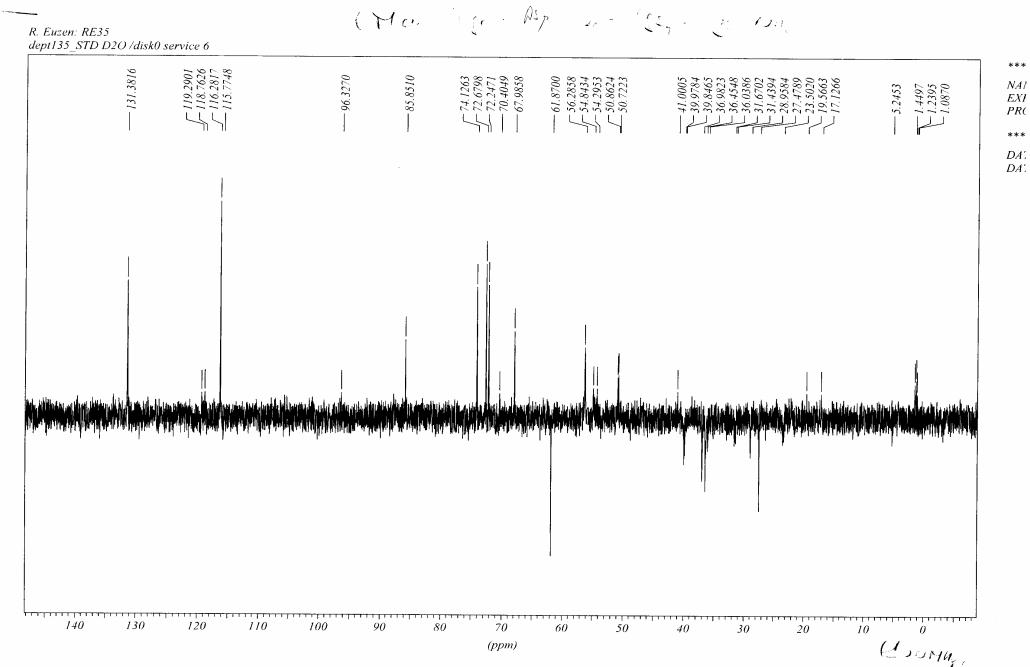
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2j



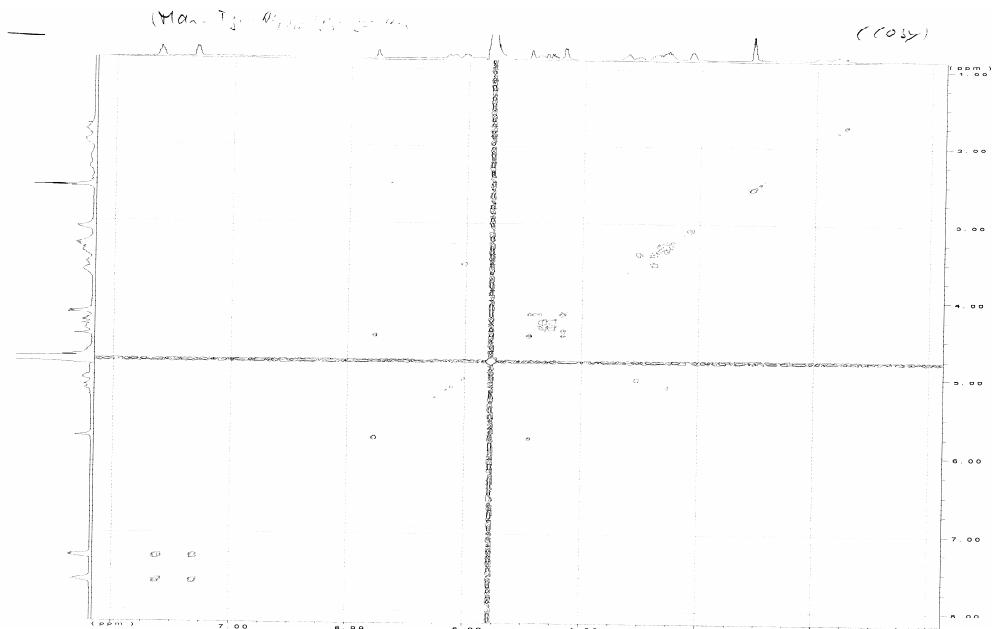
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2j



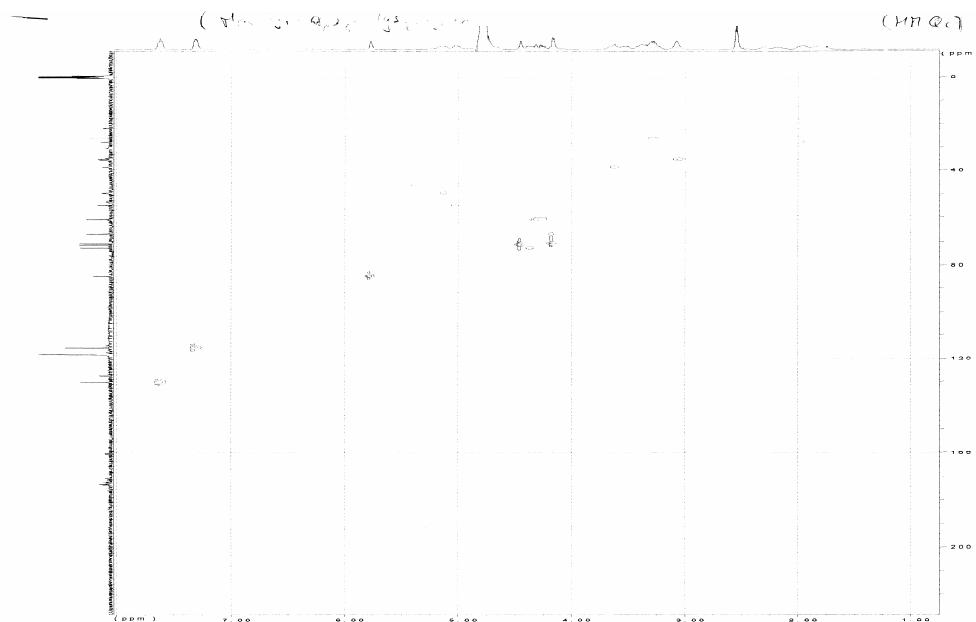
## DEPT spectrum of the glycopeptide dendrimer G2j



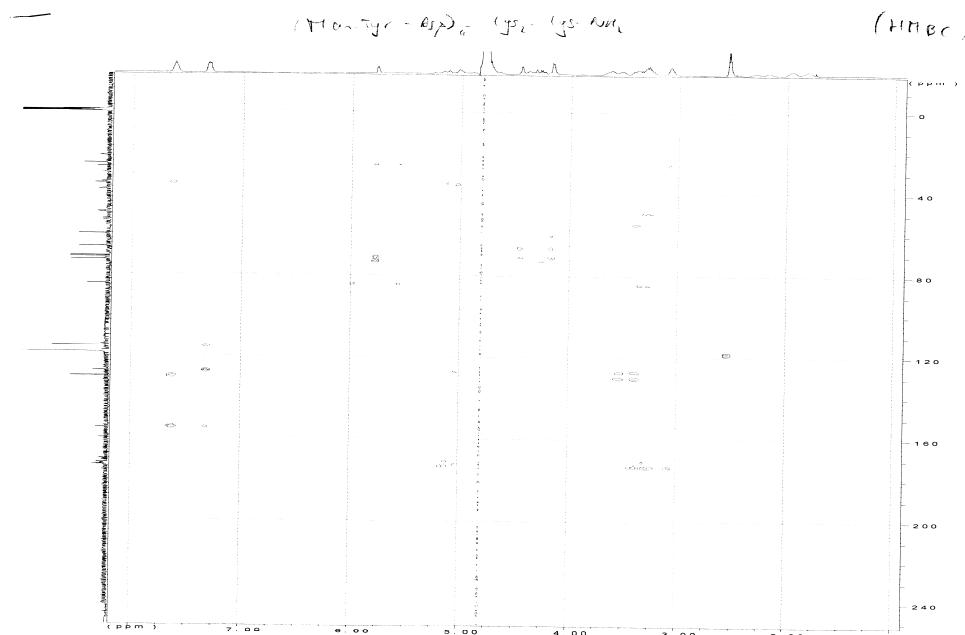
## COSY spectrum of the glycopeptide dendrimer G2j



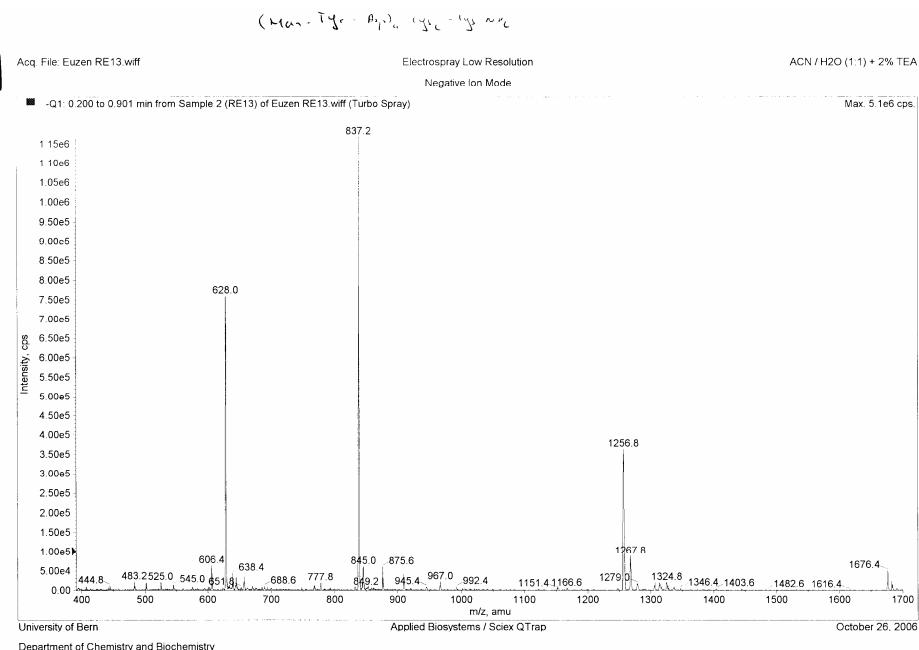
HMOC spectrum of the glycopeptide dendrimer G2j



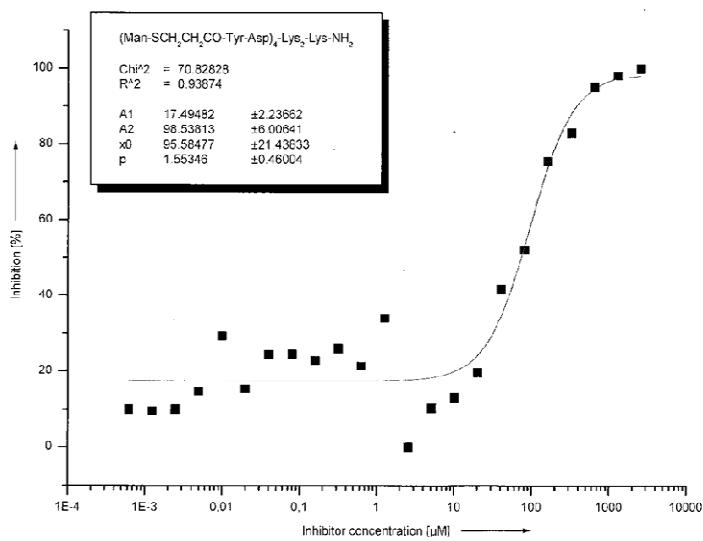
HMBC spectrum of the glycopeptide dendrimer G2j



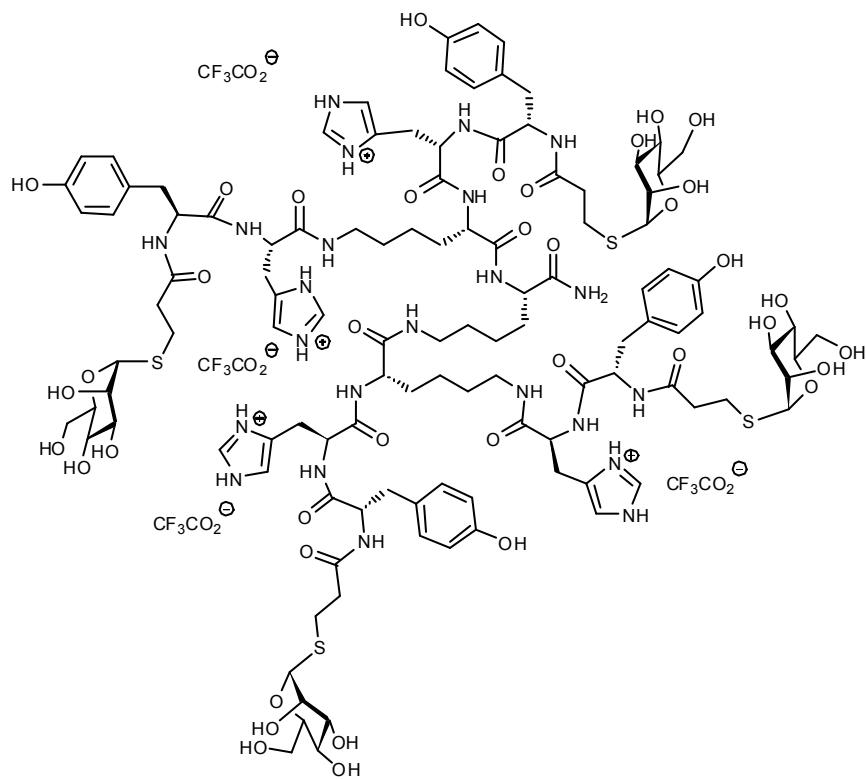
### Mass spectrum (ESI<sup>-</sup>) of the glycopeptide dendrimer G2j



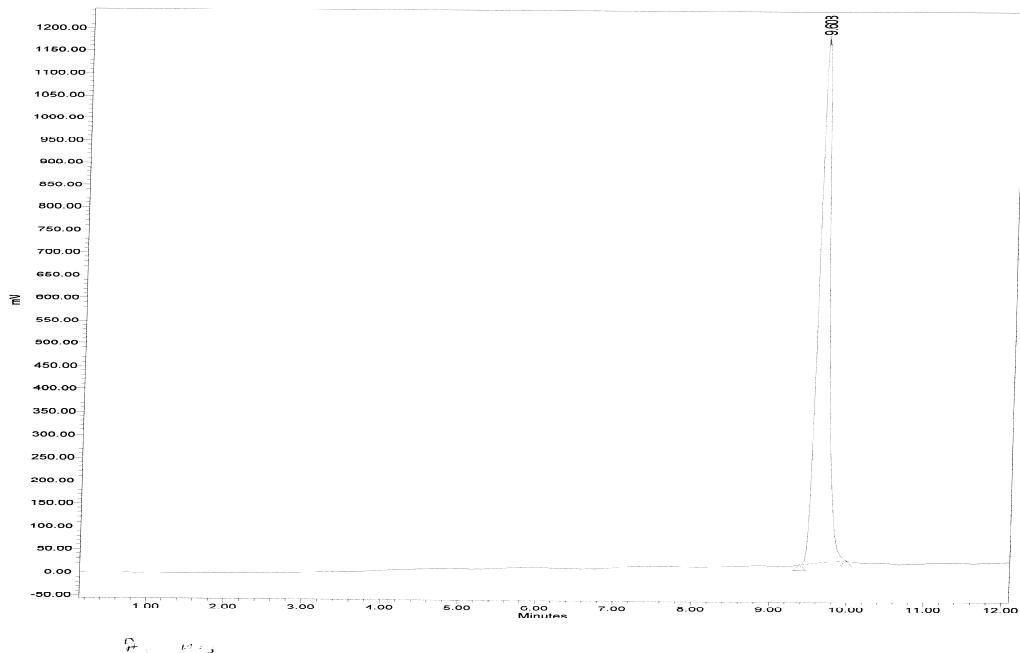
### Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2j



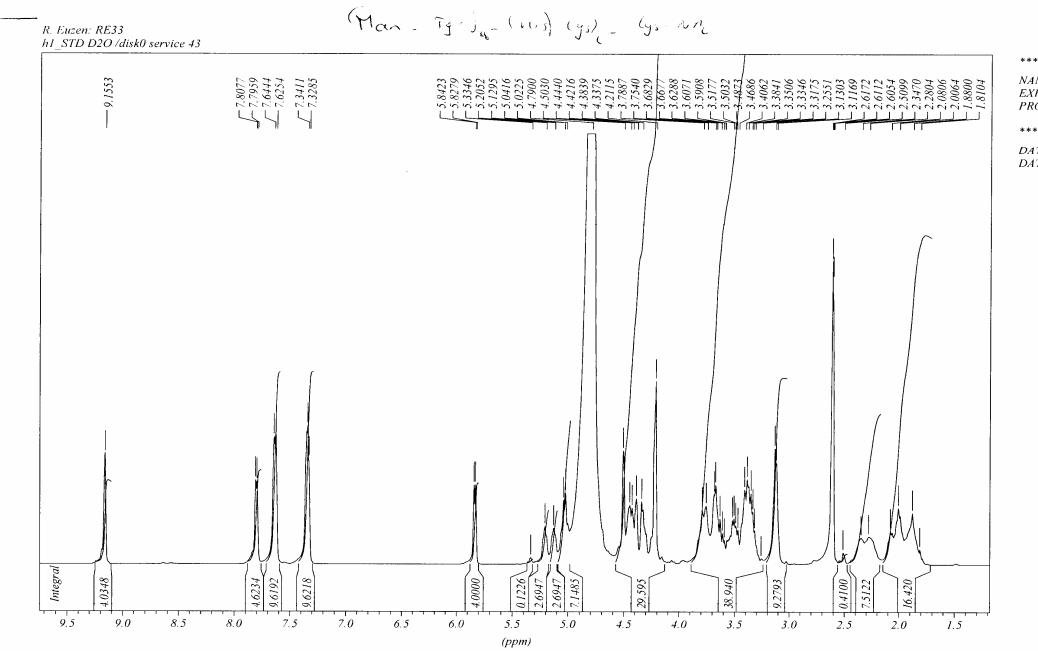
## Glycopeptide dendrimer G2k



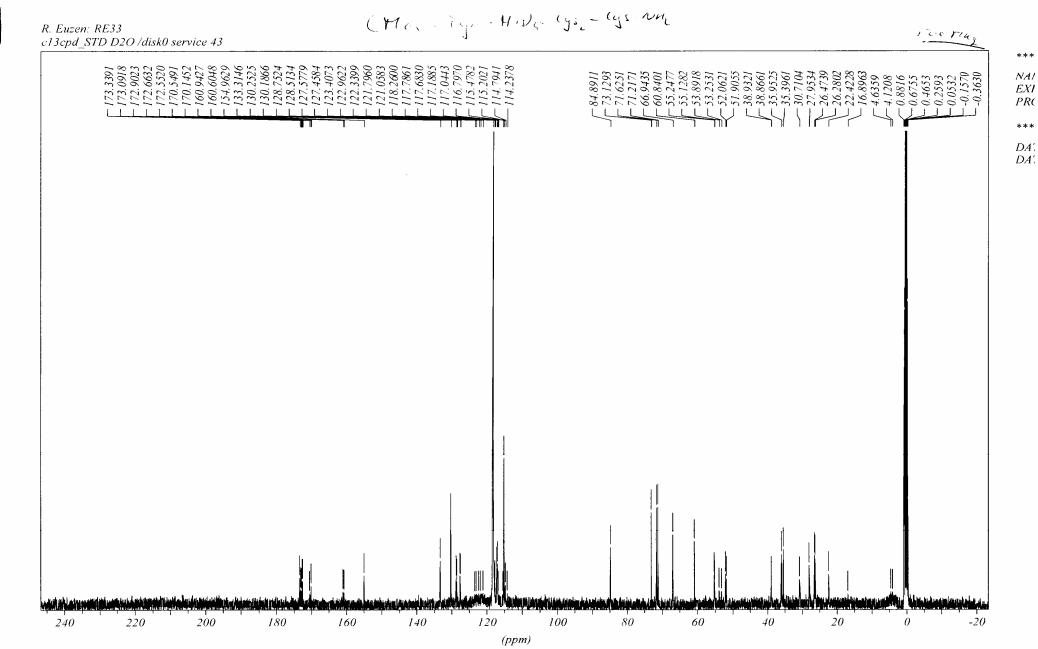
### HPLC analysis of the glycopeptide dendrimer G2k



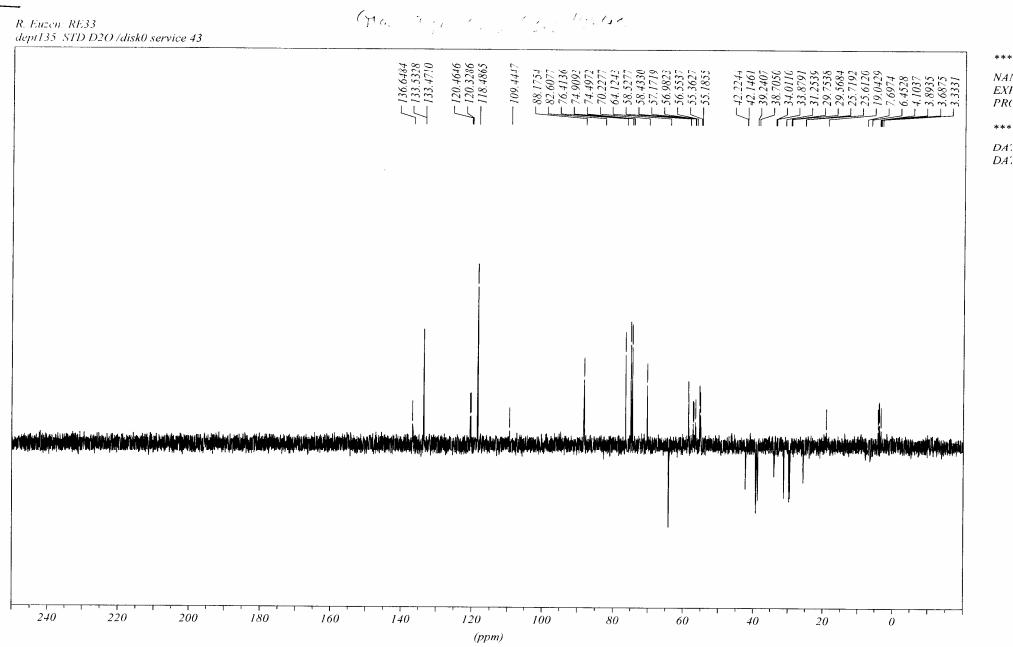
**<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G2k**



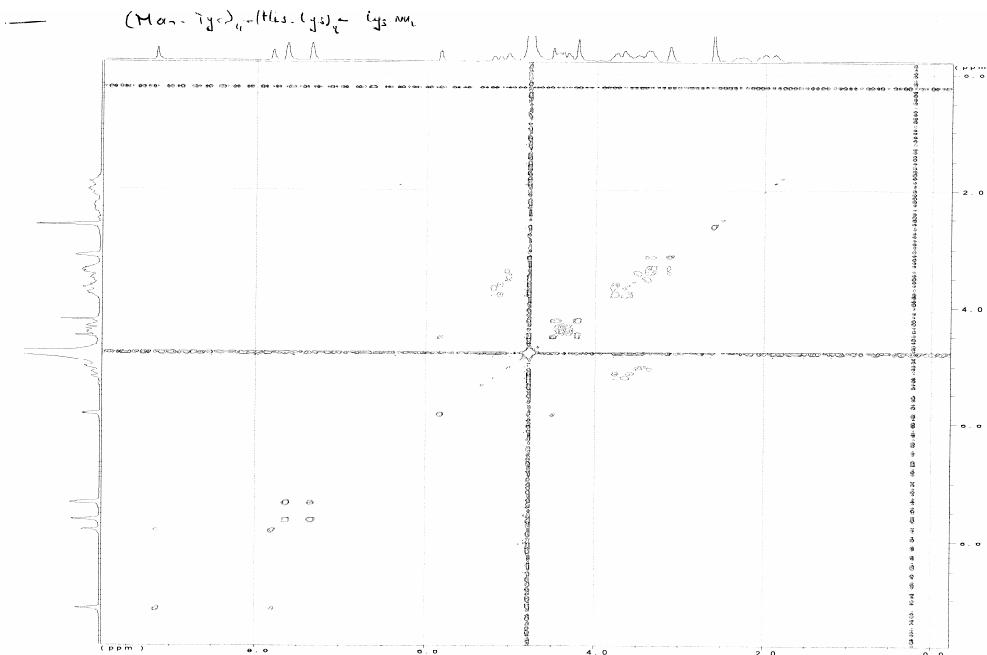
**<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G2k**



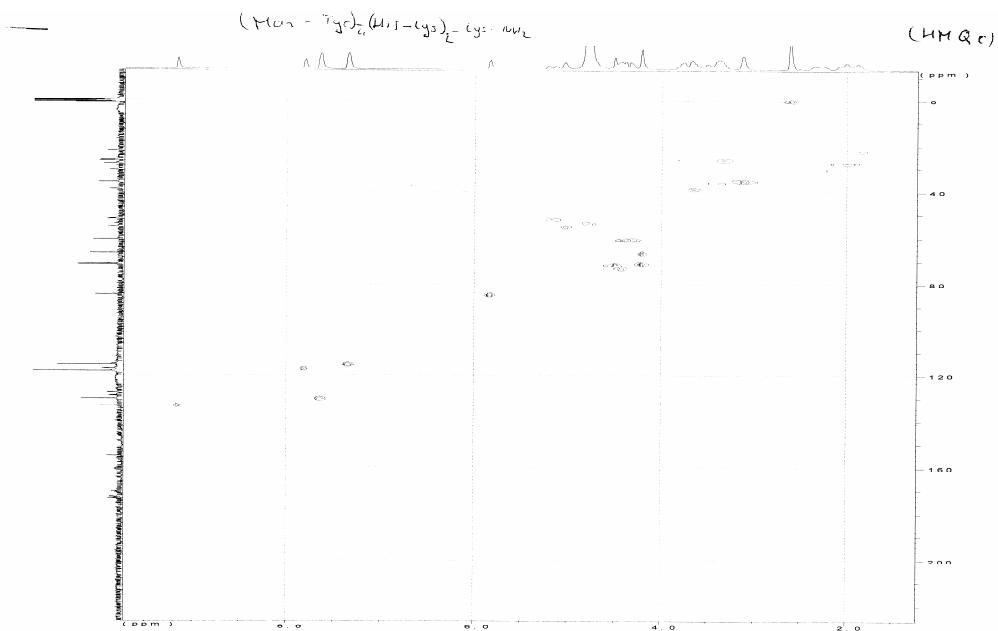
DEPT spectrum of the glycopeptide dendrimer G2k



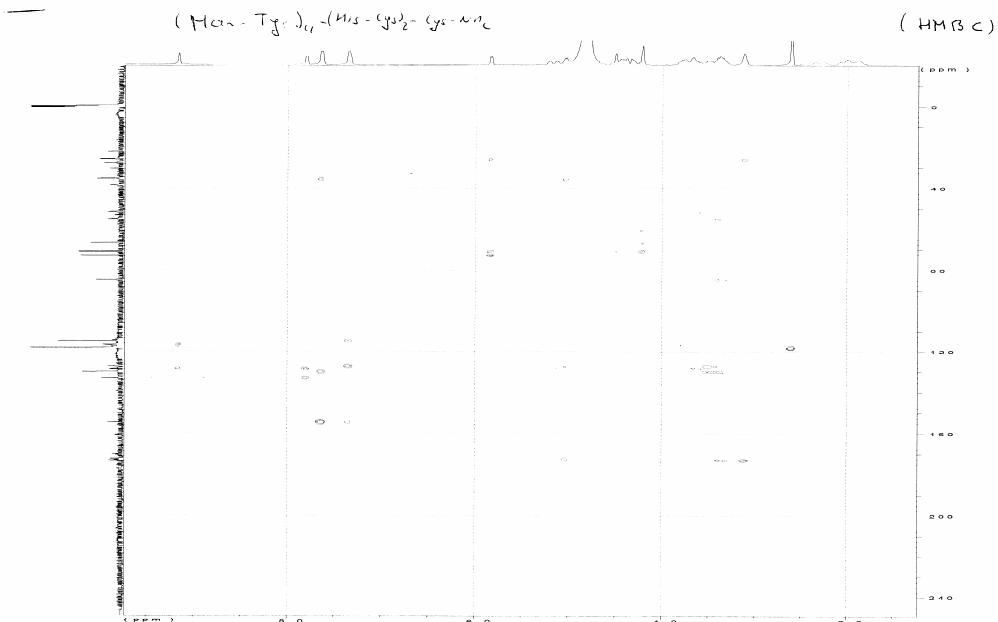
COSY spectrum of the glycopeptide dendrimer G2k



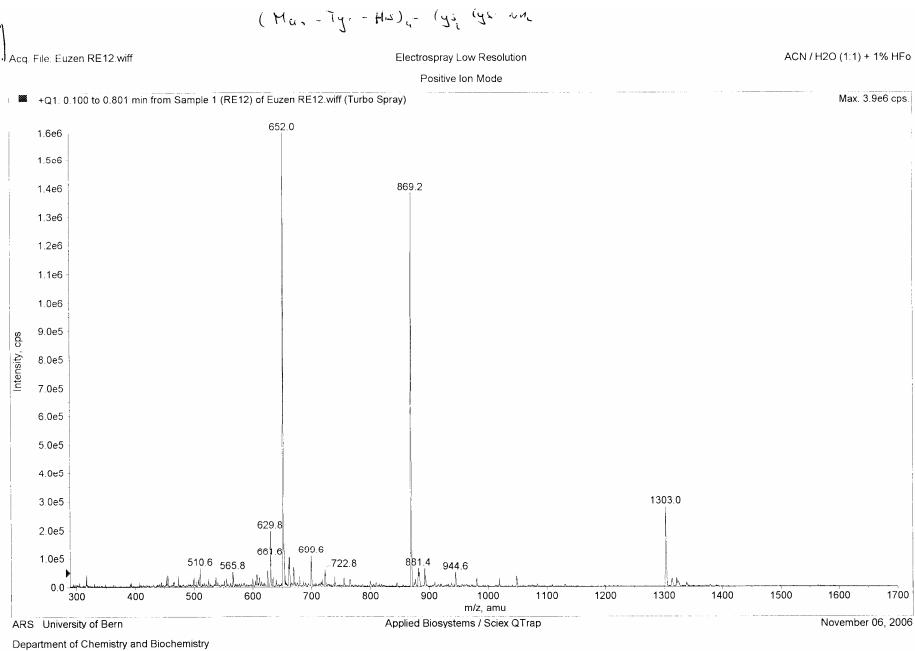
HMBC spectrum of the glycopeptide dendrimer G2k



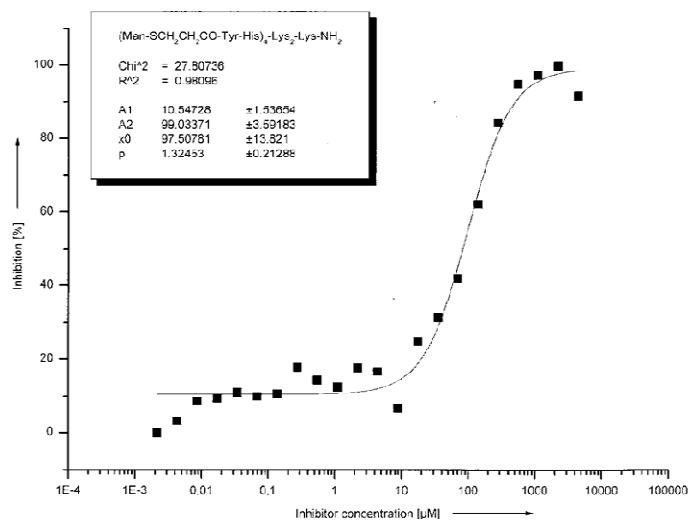
HMBC spectrum of the glycopeptide dendrimer G2k



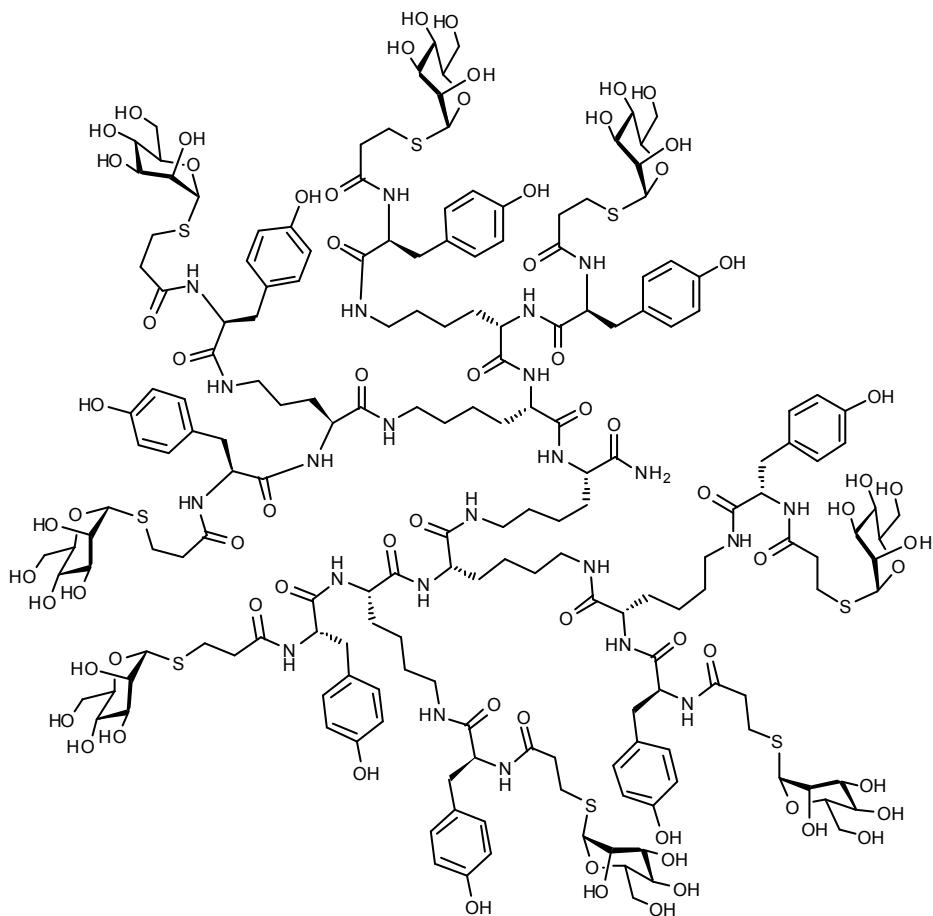
### Mass spectrum (ESI<sup>+</sup>) of the glycopeptide dendrimer G2k



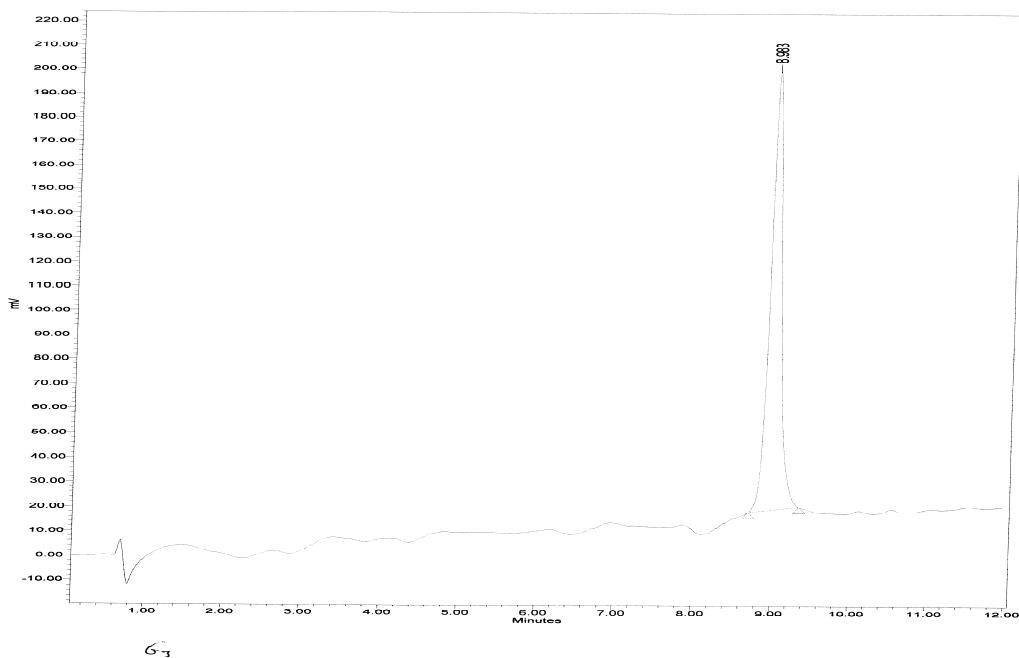
### Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G2k



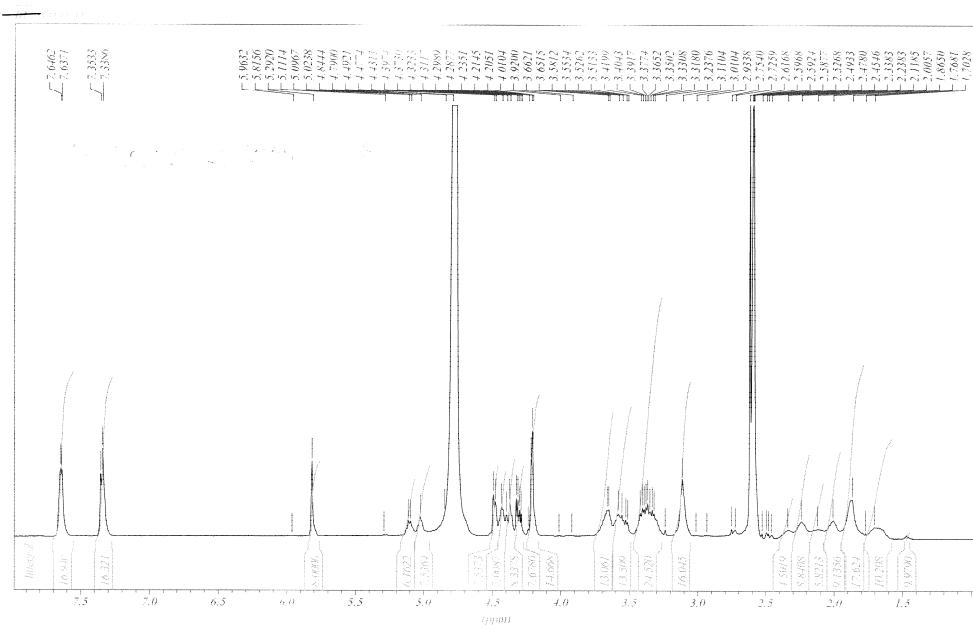
## Glycopeptide dendrimer G3



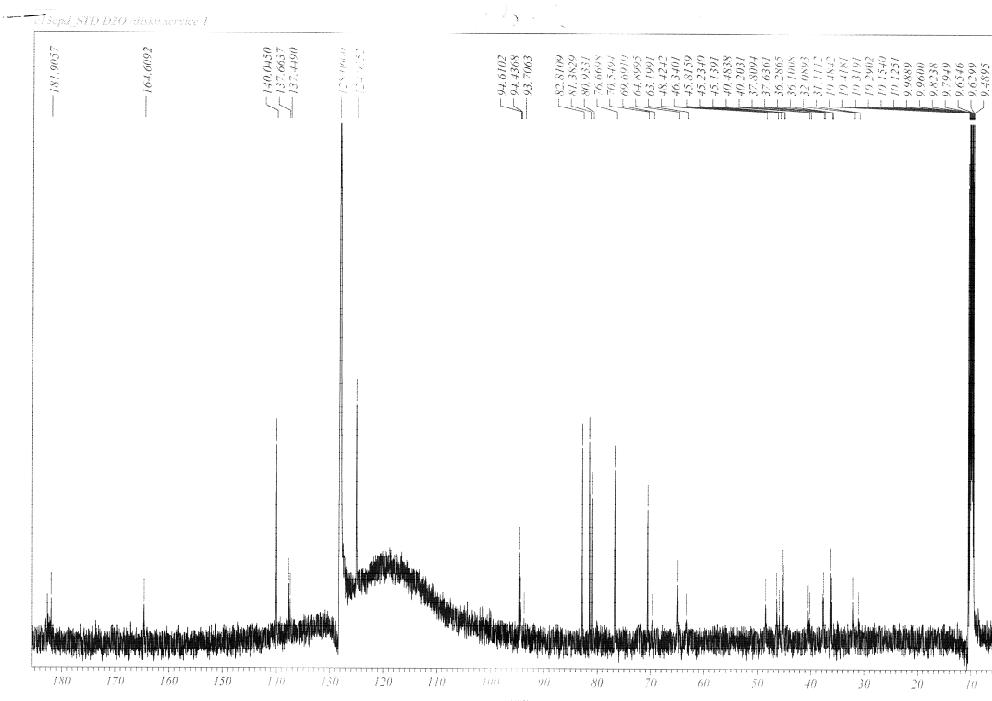
### HPLC analysis of the glycopeptide dendrimer G3



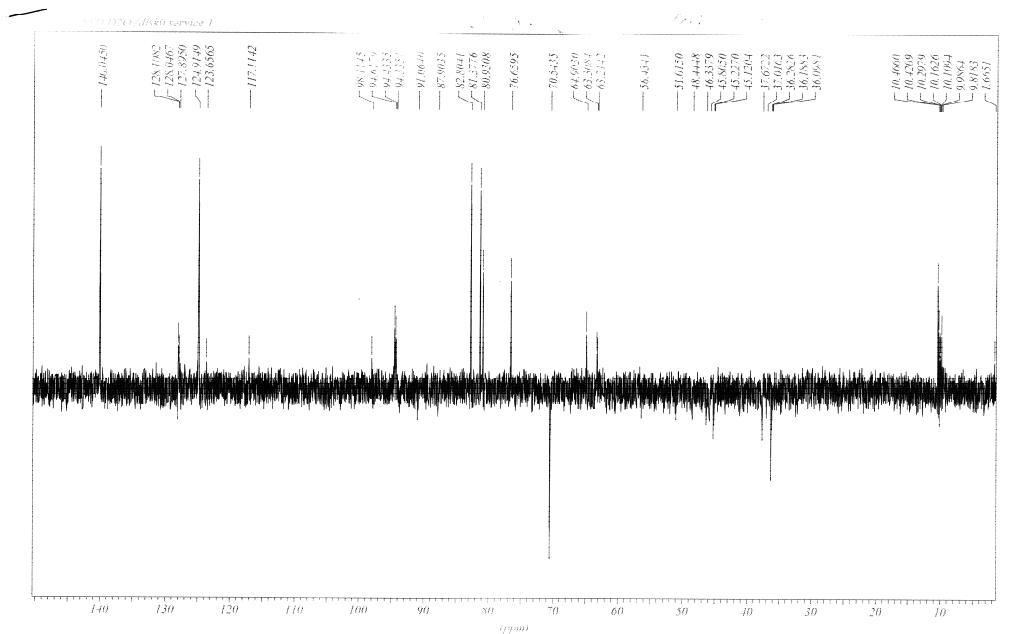
<sup>1</sup>H NMR spectrum of the glycopeptide dendrimer G3



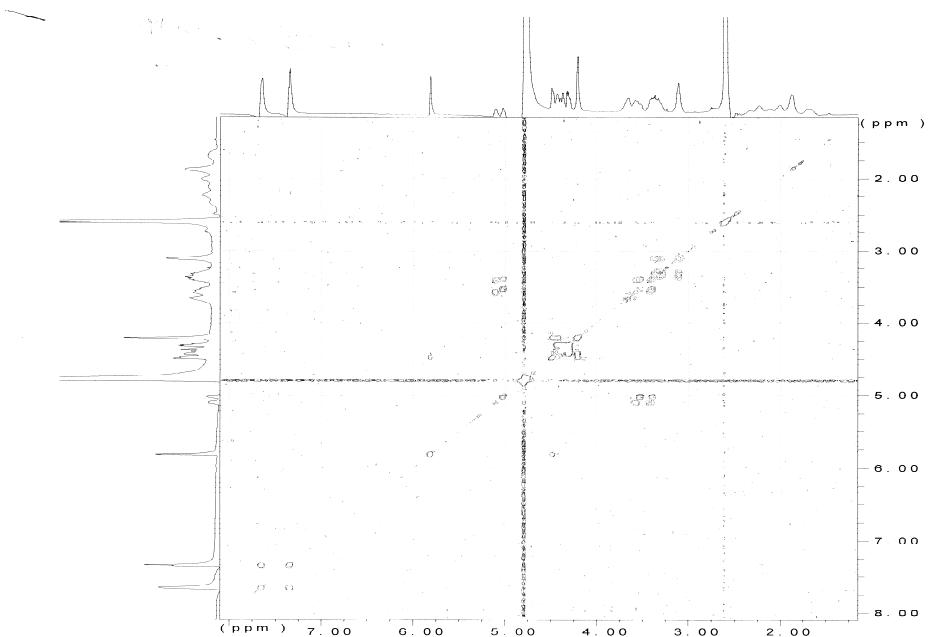
<sup>13</sup>C NMR spectrum of the glycopeptide dendrimer G3



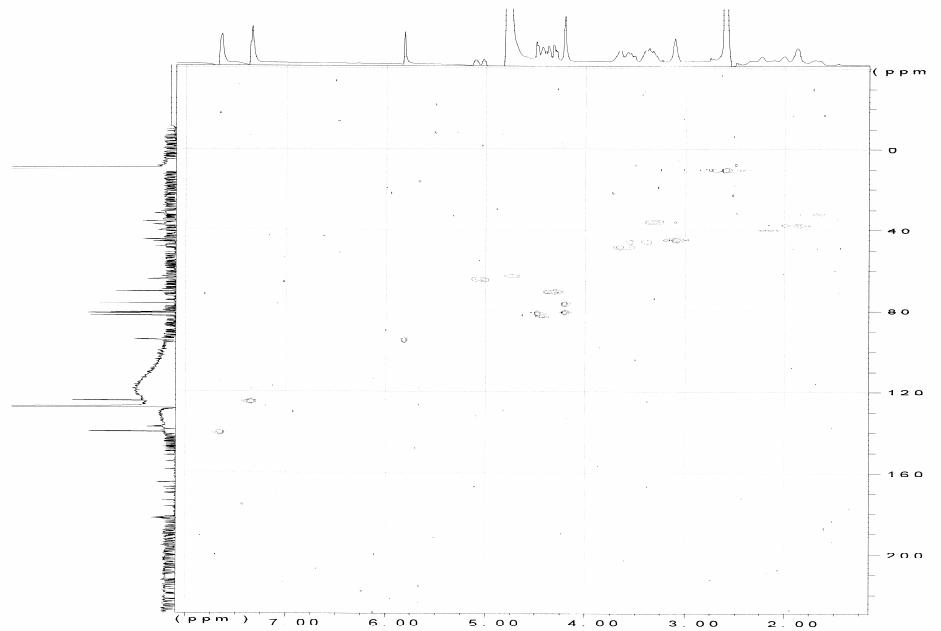
## DEPT spectrum of the glycopeptide dendrimer G3



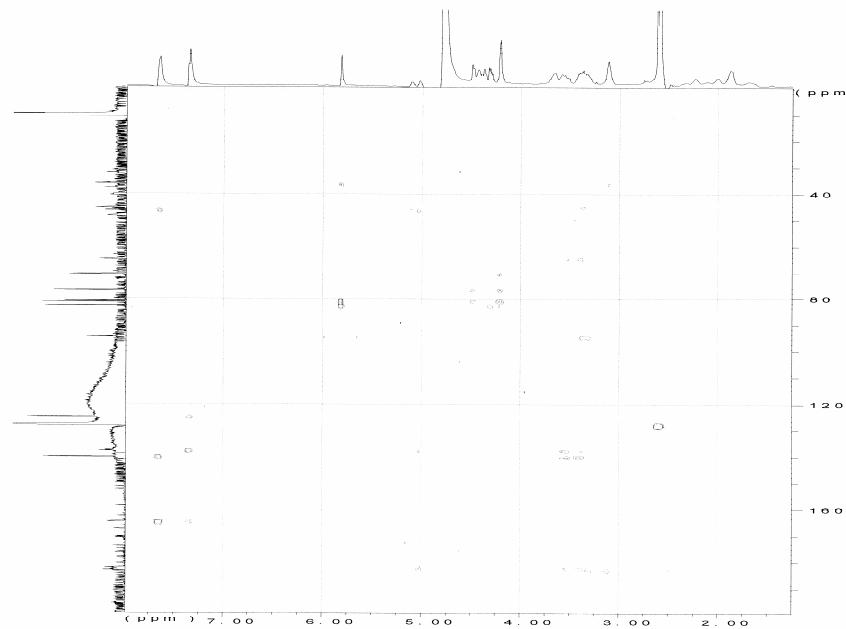
### COSY spectrum of the glycopeptide dendrimer G3



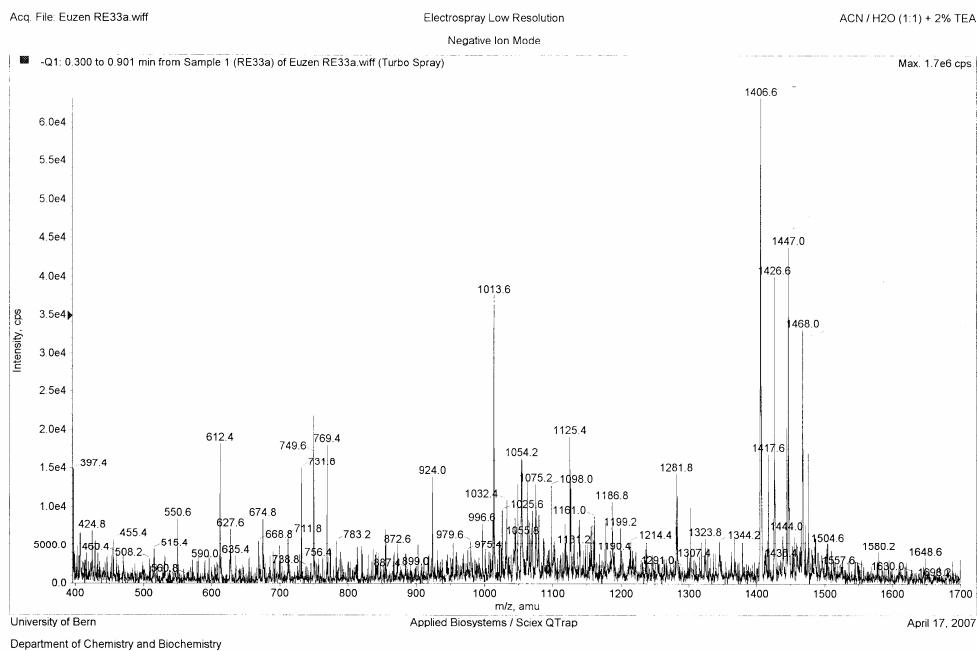
HMQC spectrum of the glycopeptide dendrimer G3



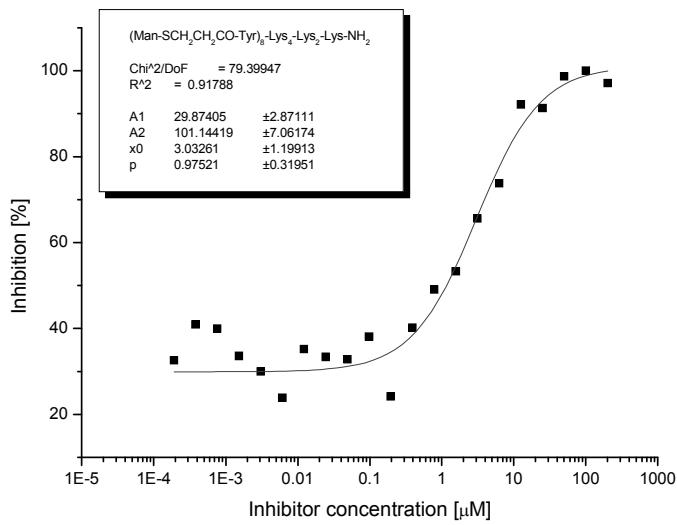
HMBC spectrum of the glycopeptide dendrimer G3



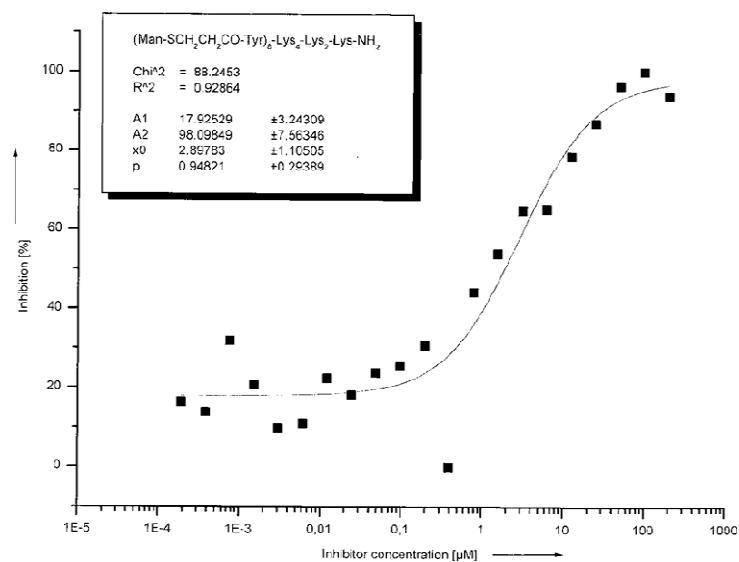
### Mass spectrum (ESI<sup>-</sup>) of the glycopeptide dendrimer G3



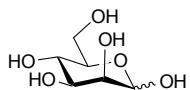
### Inhibition curve obtained by standard ELLA for the glycopeptide dendrimer G3



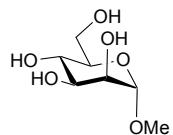
Inhibition curve obtained by enhanced-sensitivity ELLA for the glycopeptide dendrimer G3



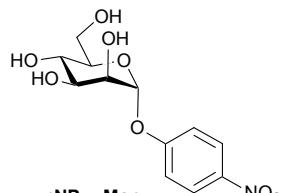
## Monovalent inhibitors



D-Mannose

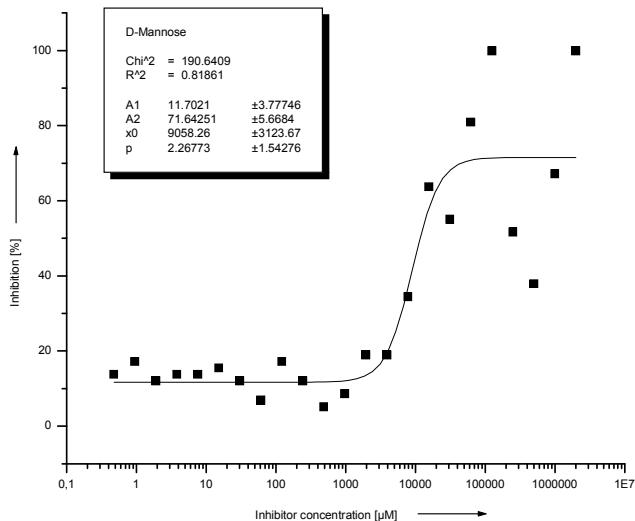


Me  $\alpha$ -Man

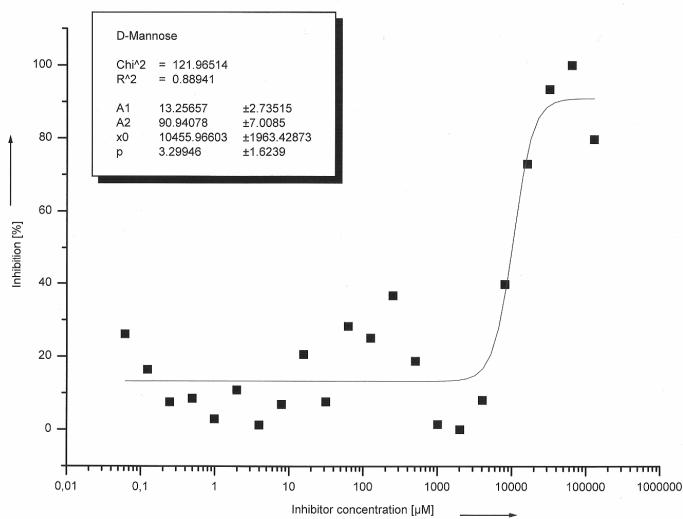


pNP  $\alpha$ -Man

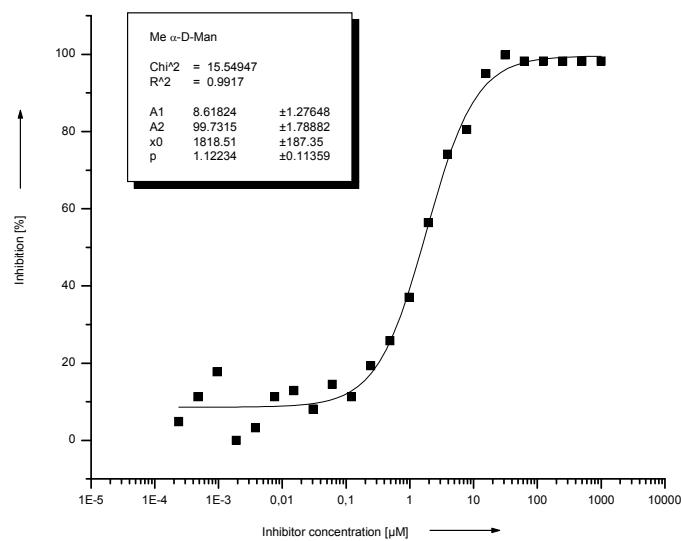
### Inhibition curve obtained by standard ELLA for D-mannose



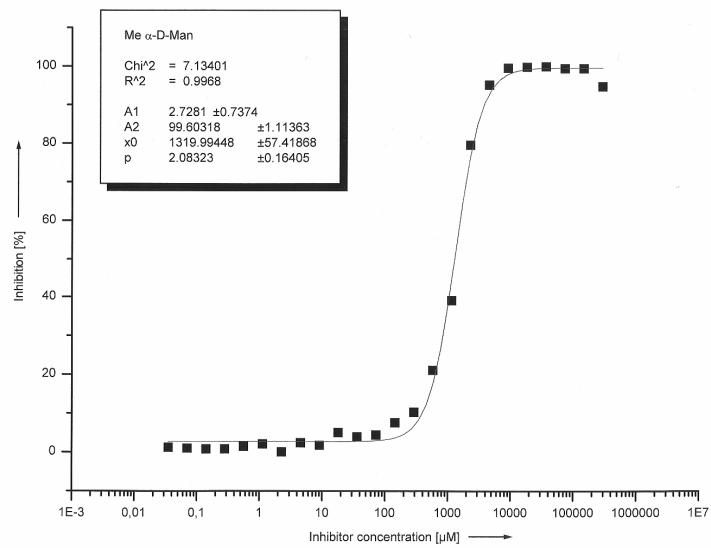
### Inhibition curve obtained by enhanced-sensitivity ELLA for D-mannose



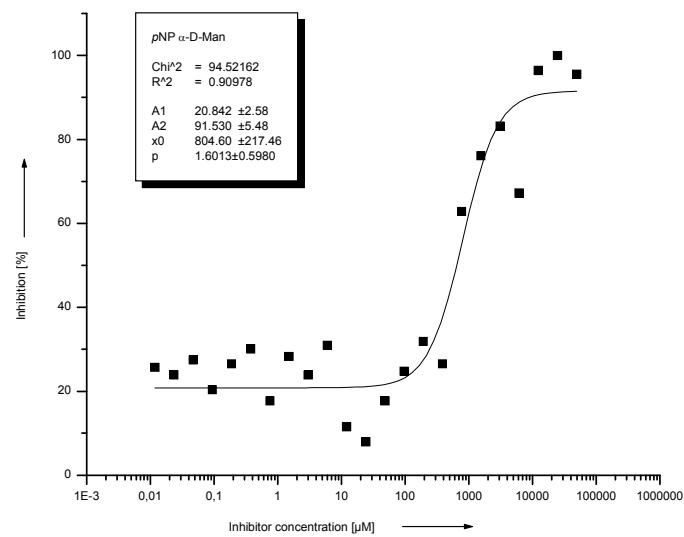
Inhibition curve obtained by standard ELLA for Me  $\alpha$ -Man



Inhibition curve obtained by enhanced-sensitivity ELLA for Me  $\alpha$ -Man



Inhibition curve obtained by standard ELLA for *p*NP  $\alpha$ -Man



Inhibition curve obtained by enhanced-sensitivity ELLA for *p*NP  $\alpha$ -Man

