

European Journal of Organic Chemistry

Supporting Information

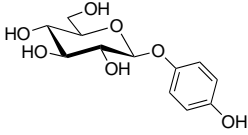
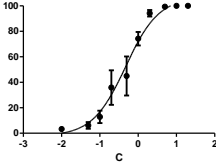
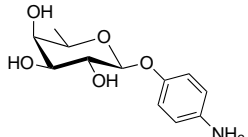
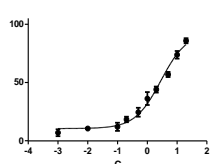
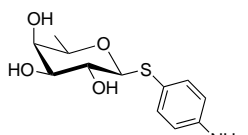
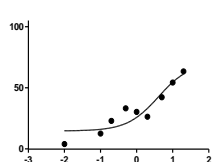
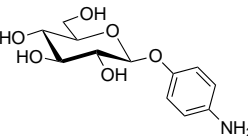
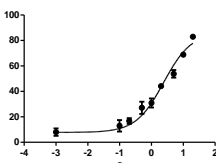
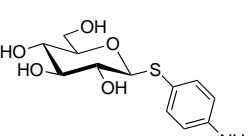
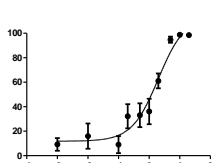
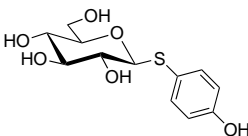
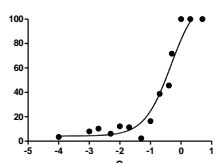
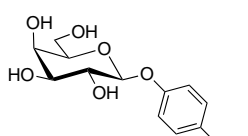
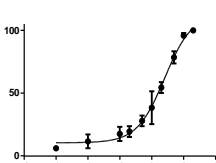
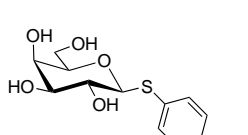
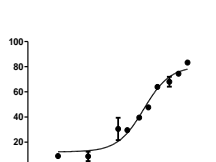
Enzymatic Synthesis of a Series of Thioglycosides: Analogs of Arbutin with Efficient Antipigmentation Properties

Cédric Peyrot, Blanka Didak, Laure Guillotin, Ludovic Landemarre, Pierre Lafite,
Loïc Lemiègre, and Richard Daniellou*

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1. Tyrosinase inhibition curves and results

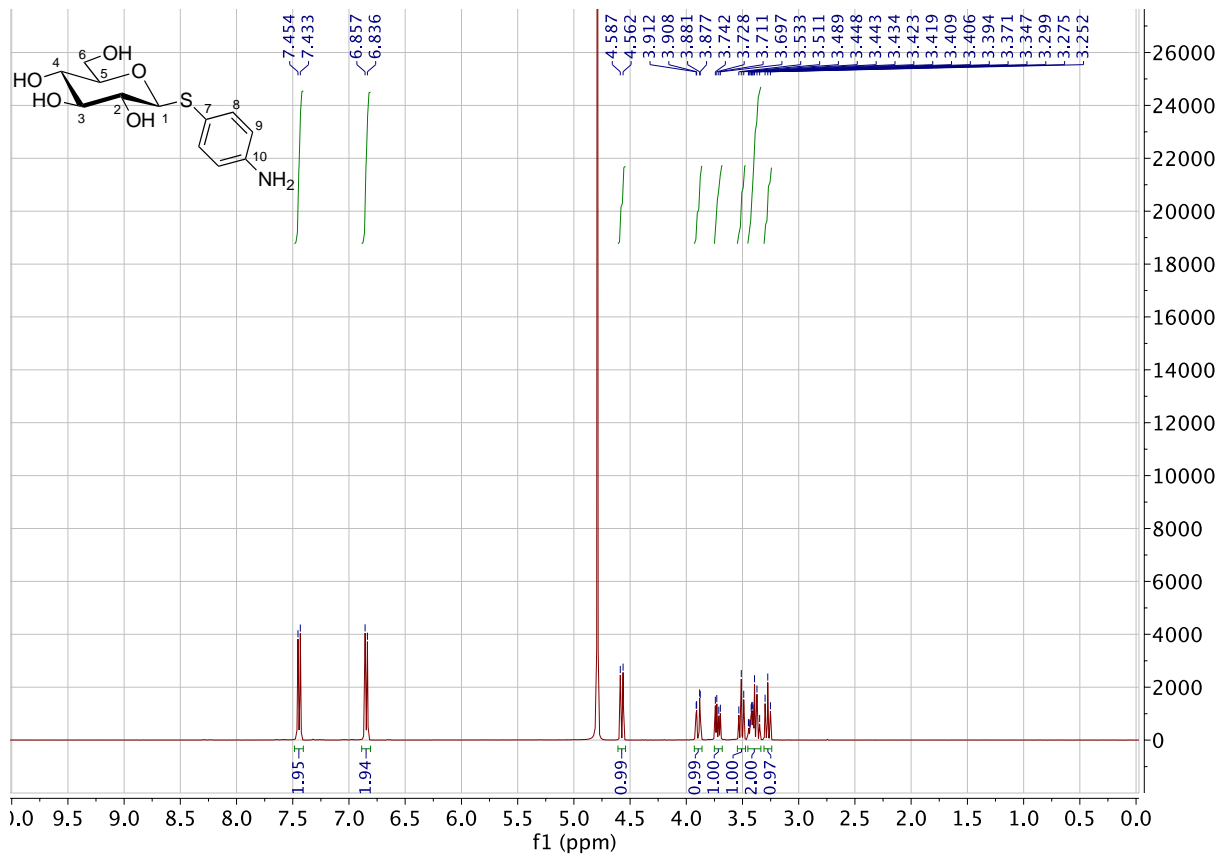
Compounds	Structures	Curves	EC ₅₀
Arbutin			0.5mM +/- 0.8
O-3			2.9 mM +/- 0.8
S-3			4.1 mM +/- 0.5
O-1			2.4 mM +/- 0.8
S-1			2.0 mM +/- 0.7
S-arbutin			0.3 mM +/- 0.7
O-2			2.6 mM +/- 0.8
S-2			0.7 mM +/- 0.8

2. Lectine sources and specificities

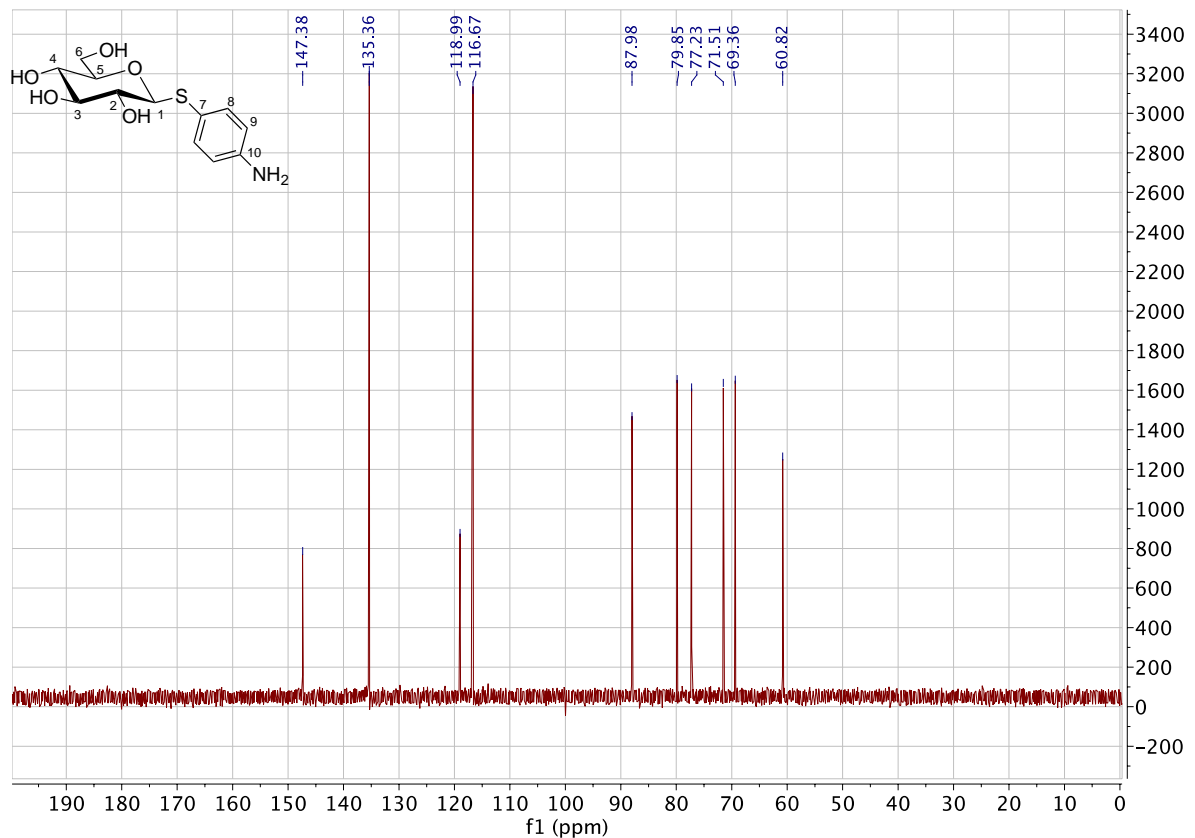
Name	Sources	Recognition specificities
ECA	<i>Erythrina cristagalli</i>	Gal- β -1,4-GalNAc > Lactose > GalNAc > Gal
MPA	<i>Maclura pomifera</i>	Gal- β -1,4-GalNAc, Gal- β -1,6-Glc
GSL-Ib4	<i>Griffonia simplicifolia isoB4</i>	α -Gal
PA-IL	<i>Pseudomonas aeruginosa lectin A</i>	GalNAc- β -1,3-Gal- β -1,4-Gal
ABA	<i>Agaricus bisporus</i>	Gal-GalNAc
PNA	<i>Arachis hypogaea</i>	Lactose
RCA I	<i>Ricinus communis I</i>	Lactose
RPL-Gal1	<i>Recombinant prokaryotic lectin Galactose 1</i>	β -Gal terminal
RPL-Gal2	<i>Recombinant prokaryotic lectin Galactose 2</i>	α -Gal terminal > GalNAc
RPL-Gal3	<i>Recombinant prokaryotic lectin Galactose 3</i>	α -Gal terminal
RPL-Gal4	<i>Recombinant prokaryotic lectin Galactose 4</i>	β -Gal terminal
ConA	<i>Canavalia ensiformis</i>	Man > Glc
PSA	<i>Pisum Sativum</i>	Man > Glc
BC2LA	<i>Burkholderia cenocepacia lectin A</i>	Man α -1,2 ; Man α -1,3 ; Man α -1,6
SBA	<i>Glycine Max</i>	β -glycosides
WFA	<i>Wisteria floribunda</i>	GalNAc, GalNAc- α -1,6-Gal

3. NMR Spectra

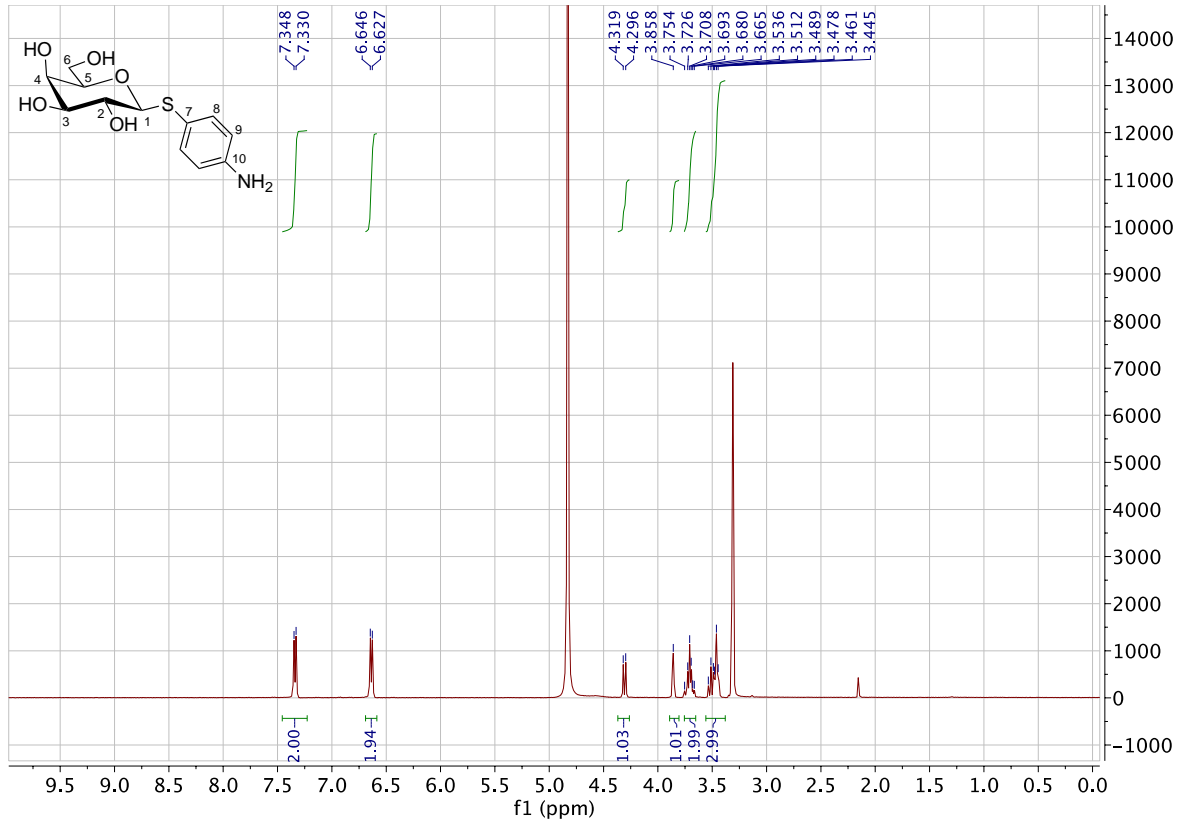
p-aminophenyl- β -D-thioglucopyranoside (**S-1**)



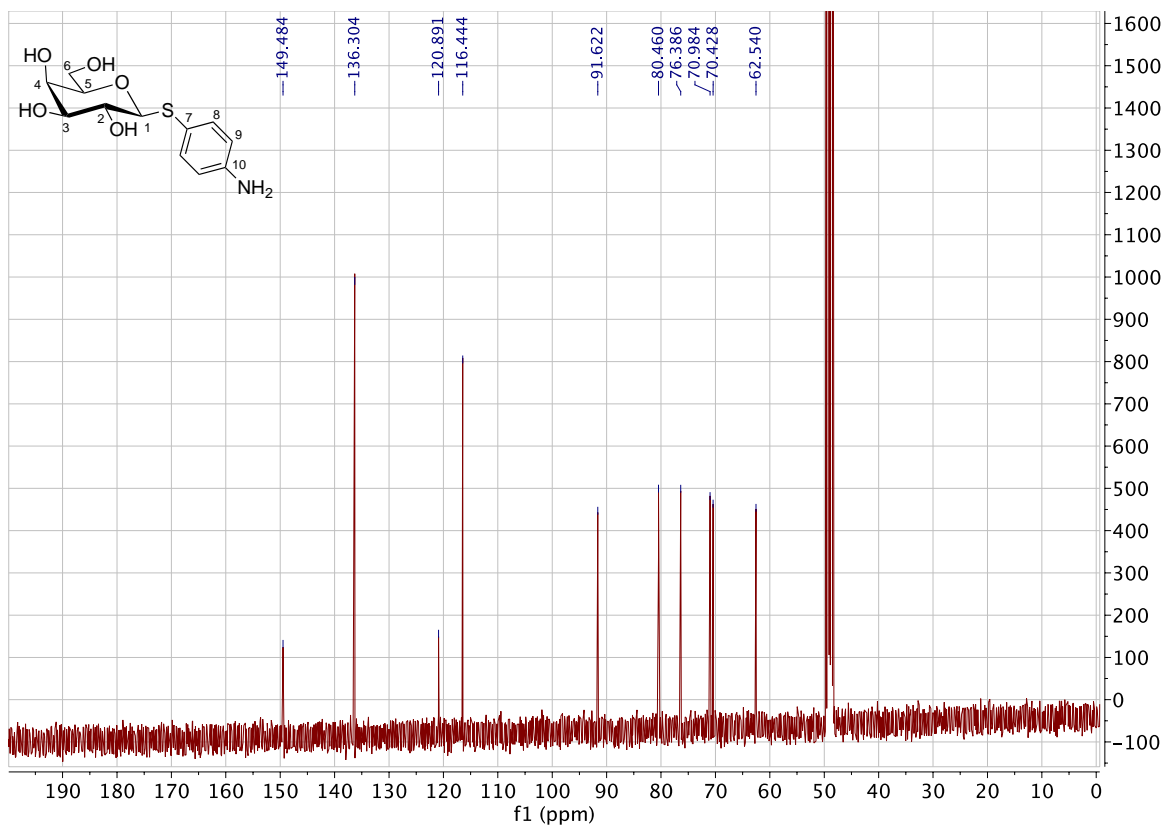
p-aminophenyl- β -D-thioglucopyranoside (**S-1**)



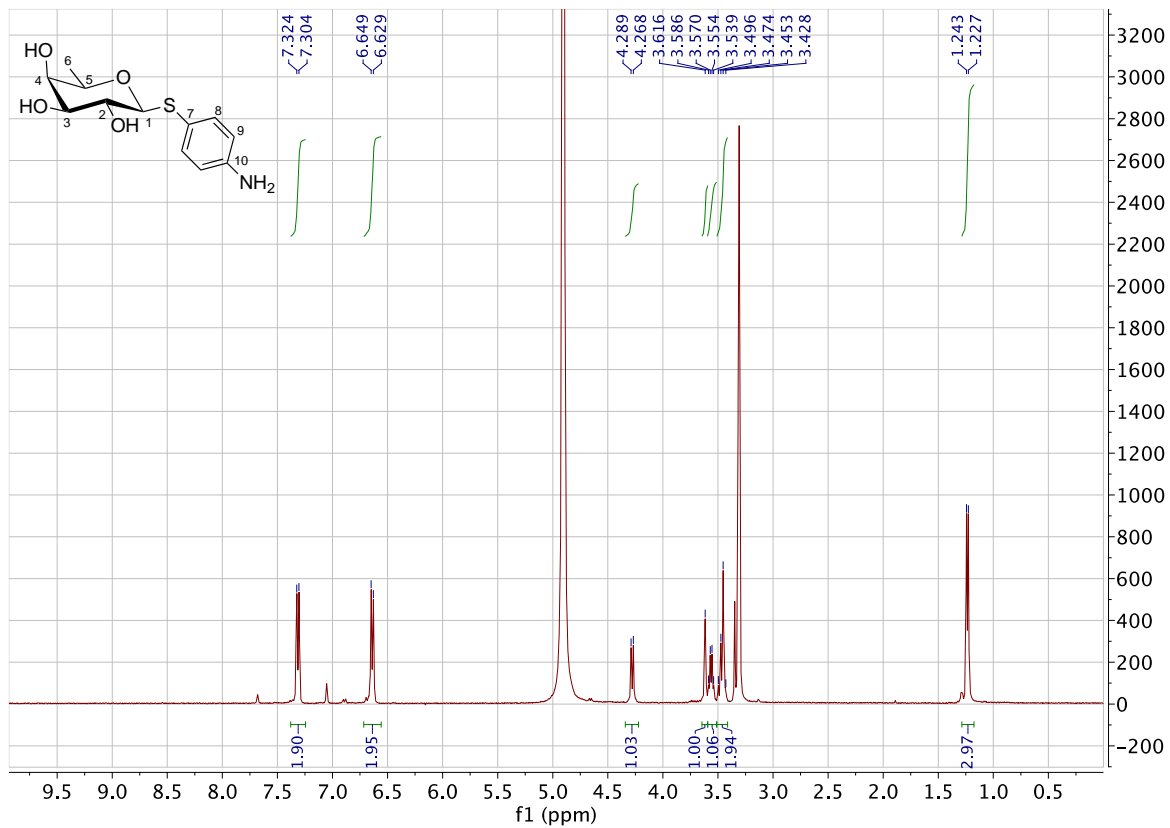
p-aminophenyl- β -D-thiogalactopyranoside (*S*-2)



p-aminophenyl- β -D-thiogalactopyranoside (*S*-2)



p-aminophenyl- β -D-thiofucopyranoside (**S-3**)



p-aminophenyl- β -D-thiofucopyranoside (**S-3**)

