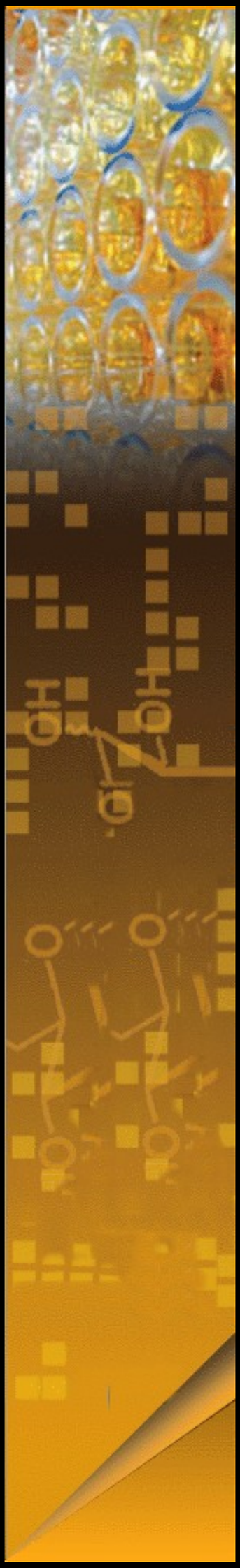

Glycosciences Products 2020

GLYCODIAG
Applied Glycomics

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Lectins

Description

Lectins are proteins or glycoproteins which possess the ability to bind specifically sugars. They have no enzyme activity and are not antibodies. Lectins are ubiquitous in nature, being found in all kinds of organisms (virus, microorganisms, plants, invertebrates and vertebrates). Lectins are usually oligomeric proteins and have many binding sites. The binding constant of the specific free sugar is generaly many orders of magnitude lower than the binding constant of a glycoconjugate (glycolipid, glycoprotein...) containing this sugar. Lectins agglutinate cells, some lectins are even blood type specific, but they are also able to recognise cells surface glycans allowing to distinguish between different cells species and states. Furthermore some lectins stimulate lymphocyte and induce mitosis. The lectins have been used for :

- **Studies of glycobiological interactions with glycans or glycans mimics**
- **Detection, isolation, and structural studies of glycoproteins**
- **Study the dynamics of the cell surface glycoconju gates**
- **Cell identification and to separate subpopulation of cells and subcellular organelles**
- **Study endocytosis, neoplastic transformation**
- **Mitogenic stimulation of lymphocytes**
- **Glyco-biomarkers dicovery and new diagnostics assays design**

List of Natural Lectins

Reference	Short Name	Common name	Glycans structures specificity
L1222	ABA	*Agaricus Bisporus*	Gal(β-1,3) GalNAc
L1221	AIA / Jacalin	*Artocarpus intergrifolia*	Gala1-6 or Galb1-3GalNAc (T-antigen)>> lactose, more specific for T-antigen than PNA
L1367	AML	*Astragalus membranaceus*	Galb
L1205	ASA	*Allium Sativum agglutinin*	α(1,3)-linked mannosyl units
L1889	BanLec	*Musa Acuminata*	αMan
L1254	CJA	*Crotalaria juncea*	Gal (Lac>GalNAc)
L1366	cMOL	*Moringa oleifera*	Complex glycans, inhibited by asialofetuin
L1201	Con A	*Canavalia ensiformis*	Man > Glc ; branched mannoses a
L2349	CorM	Coregonus lavaretus marenae	Rha
L1206	GNL / GNA	*Galanthus nivalis*	Terminal mannoses. Mana1-3Man ; a2-macroglobulin ; bind mannopentaose
L1202	LcH	*Lens culinaris*	Mana/Glca > GlcNAca, enhanced by Fuca1-6 on the core GlcNAc-Asn N-glycopeptides
L1252	NPA	*Narcissus pseudonarcissus Daffodil*	External or internal a or b mannose
L1240	PHA E	*Phaseolus vulgaris*	Galb1-4GlcNAcb1-2Man, the bisecting GlcNAcb1-4Man is essential.
L1239	PHA L	*Phaseolus vulgaris*	Galb1-4GlcNAcb1-6Man of branched structures of N-glycans, Galb1-4GlcNAcb1-2Man.
L1223	PNA	*Arachis hypogaea*	Lactose, T- antigen
L1203	PSA, PEA	*Pisum sativum*	Man > Glc ; enhanced by Fuca1-6 on the core GlcNAc-Asn N-glycopeptides, IgM1A mouse
L1216	SBA	*Glycine max*	Preference for a over b-glycodidic linkage.
L1237	SNA	*Sambucus nigra*	Neu5Aca2-6Gal/GalNAc
L1261	TXLC-I	*Tulipa gesneriana agglutinin*	GalNAc, Gal
L1253	VEA	*Vicia ervilia*	Man>trehalose>Glc
L1204	VFA	Vicia faba	Man >Glc>GlcNAc
L1230	WGA	*Triticum vulgare*	GlcNAc; GlcNAcb1-4 oligomers , core of Asn linked oligasacchide; Neu5Ac

List of recombinant Lectins

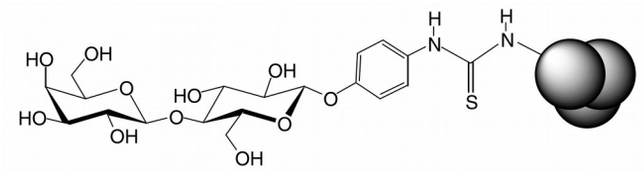
Reference	Short Name	Common name	Glycans structures specificity
L1255	BC2L-A	Burkholderia cenocepacia lectin A	Manα1-2, Manα1-3, Manα1-6, dimanoside,
L1256	BC2L-C	Burkholderia cenocepacia lectin C (N terminal domain)	Fuc, oligo H type I, Lewis B, Lewis Y
L1688	FimH	*Escherichia coli adhesin FimH*	Mannosylated structure
L2094	HPyL	Human Polyomavirus 9 VP1	Neu5Gc
L1257	PA-IL	Pseudomonas aeruginosa lectin A	Galα, Globoside
L1259	PAII-L	Pseudomonas aeruginosa lectin B (Lec B)	Fuc >> Man, Lewis A
L2099	RPL-Fuc1	Recombinant Prokaryotic Lectin Fuc1	α-linked Fucose
L2095	RPL-αGal	Recombinant Prokaryotic Lectin αGal	Terminal α-linked Gal & GalNAc
L1579	RPL-Gal1	Recombinant Prokaryotic Lectin Gal1	Terminal β-linked Gal & LacNAc
L1580	RPL-Gal2	Recombinant Prokaryotic Lectin Gal2	Terminal α-linked Gal > GalNAc
L1581	RPL-Gal3	Recombinant Prokaryotic Lectin Gal3	Terminal α-linked Gal
L1582	RPL-Gal4	Recombinant Prokaryotic Lectin Gal4	Terminal β-linked Gal, LacNAc & Lewis x (Lex)
L1583	RPL-αMan	Recombinant Prokaryotic Lectin αMannose	Fucose/Mannose: Lewis a (Lea), Lewis x (Lex) & terminal α-mannose
L1584	RPL-Man2	Recombinant Prokaryotic Lectin Man2	Terminal α-mannose
L2096	RPL-Sia1	Recombinant Prokaryotic Lectin Sia1	Terminal α2-3-linked Sialic Acid (Neu5Ac) – on both N-linked and O-Linked
L2097	RPL-Sia2	Recombinant Prokaryotic Lectin Sia2	Terminal α 2-3-linked Sialic Acid (Neu5Ac) on O-Linked Glycans
L2098	RPL-Sia3	Recombinant Prokaryotic Lectin Sia3	Terminal α-linked Neu5Ac
L1258	RSL	Ralstonia solanacearum	Fuc

Neoglycoproteins

Description

Neoglycoproteins are **glycosylated bovine serum albumin** (BSA) molecules obtained after the conjugation of a phenylisothiocyanate glycosides with the ε-amino groups of lysine residues of BSA. The synthesis of each neoglycoprotein is conducted under a standardized procedure allowing an excellent batch to batch reliability. Each neoglycoprotein is submitted to a complete quality control ensuring a total conformity with the specifications : purity, carbohydrates/protein ratio, labeling and **functionnality assessed by interactions with lectins**.

Mono and di-saccharide neoglycoproteins are **produced routinely and always available (from 1 mg to 50 mg)** in unlabeled or fluoresceinylated forms. **Biotinylated or other conjugates as well as more complex neoglycoproteins** are available upon request.



Intended use

Neoglycoproteins are known as “amplifiers” of carbohydrates-proteins interactions. The use of neoglycoproteins as tools to decipher glycoconjugates, carbohydrates binding proteins and more generally proteins-carbohydrates interactions were described in many studies (see bibliography). Neoglycoproteins are used in number of methods including histochemistry, ELISA assays, blotting assays, affinity chromatography, cytochemistry by flow cytometry, confocal or electron microscopy.

Neoglycoproteins can be use for research purposes to:

- **Identify lectins or lectin-like proteins.**
- **Purify lectins or other carbohydrate-binding proteins.**
- **Design new diagnostic tools**.
- **Discover biomarkers.**
- **Target drugs**.
- **Trigger immune response** against carbohydrates moieties.

Benefits

- The **affinity** of the neoglycoproteins is 10_2-10_4 higher than that of the corresponding free sugars.
- The neoglycoproteins are very reliable and **stable products** that can be labeled with great flexibility.
- The **high solubility** in aqueous solutions makes neoglycoproteins very powerfull reagents for glycosciences studies.

Description	Reference
βChitobiose-BSA	NeoCT
βchitobiose-BSA-F*	NeoCTF
αLFuc-BSA	NeoF
αLFuc-BSA-F	NeoFF
αDGal-BSA	NeoGa
αDGal-BSA-F	NeoGaF
βDGal6P-BSA	NeoGaP
βDGal6P-BSA-F	NeoGaPF
αDGalNAc-BSA	NeoGaN
αDGalNAc-BSA-F	NeoGaNF
αDGlc-BSA	NeoaG
αDGlc-BSA-F	NeoaGF
βGlc-BSA	NeobG
βGlc-BSA-F	NeobGF
βDGlcNAc-BSA	NeoGN
βDGlcNAc-BSA-F	NeoGNF
βDLac-BSA	NeoL
βDLac-BSA-F	NeoLF
αDMan-BSA	NeoM
αDMan-BSA-F	NeoMF
αDMan6P-BSA	NeoMP
αDMan6P-BSA-F	NeoMPF
αLRhamnose-BSA	NeoR
αLRhamnose-BSA-F	NeoRF
BSA-F	NeoBF
Glucitol-Bsa-F	NeoGolF

* : F = Fluoresceinylated.

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- Minwalla *et al.* (2001).Inhibition of melanosome transfer from melanocytes to keratinocytes by lectins and neoglycoproteins in an in vitro model system. *Pigment Cell. Res.*, **14**, 185-194.
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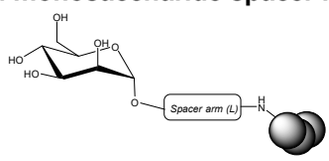
- Monsigny *et al.* (2007). Carbohydrate-mediated Interactions. 3.23. Neoglycoproteins. Comprehensive Glycoscience. From Chemistry to Systems Biology. Amsterdam, Elsevier. **3**, 477-521.

Neoglycoclusters

Description

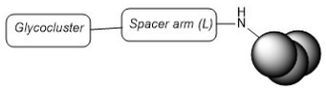
Neoglycoproteins are **glycosylated bovine serum albumin** (BSA) molecules. In order to improve accessibility and avidity of a carbohydrate-binding proteins, a new version of neoglycoproteins containing spacer arm (*i.e.* an alkyl spacer) were developed and proposed either with monosaccharides or with glycoclusters.

- Standard monosaccharide spacer neoglycoproteins:



Description	Reference
αDFuc-BSA	NeoFL
αDGal-BSA	NeoGaL
αGalactofuranose-BSA	NeoGafL
αNeuGc-BSA	NeoNeuGcL
αDMan-BSA	NeoML

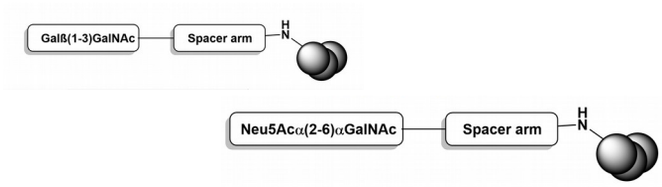
- **Neoglycoclusters**, achieved by introduction of a carbohydrate cluster containing 3 to 9 carbohydrates units:



Description	Reference
αDMan-BSA	NeoMClus_O3
αDMan-BSA	NeoMClus_O9
αDMan-BSA	NeoMClus_2O3
αDMan-BSA	NeoMClus_2O9

O3 = 3 monosaccharides/cluster; 2O3 = 3 disaccharides/cluster
O9 = 9 monosaccharides/cluster ; 2O9 = 9 disaccharides/cluster

- Tumor associated carbohydrate antigens like neoglycoproteins : T and STn neoglycoproteins with respectively Galβ(1-3)GalNAc and Neu5Ac(a2-6)GalNAc were developped. These two neoglycoproteins are potentially useful for the research and development of some cancer diagnostics and immunotherapies.



Description	Reference
Neu5Acα6GalNAc-BSA	NeoSTn
Galβ3GalNAc-BSA	NeoT

The synthesis of each neoglycoprotein is conducted under a standardized procedure allowing an excellent batch to batch reliability. Each neoglycoprotein and neoglycocluster is submitted to a complete quality control ensuring a total conformity with the specifications: purity, carbohydrates/protein ratio, labeling and **functionnality assessed by interactions with lectins through GLYcoPROFILE method**.

Monosaccharide spacer neoglycoproteins and neoglycoclusters are **produced routinely and always available (*i.e.* 1 mg)** in unlabeled forms *(labeled products available on request).*

Benefits

- The **affinity of neoglycocluster** is 10^2 to 10^3 higher than usual neoglycoprotein.
- Neoglycoproteins ans neoglycoclusters are very reliable and stable compound.
- The high solubility in aqueous solutions makes neoglycoproteins and neoglycocluster very powerfull reagents for glycosciences studies.

Bibliography

- Duverger *et al.* (1999). Interaction between lectins and neoglycoproteins containing new sialylated glycosynthons. *Glycoconjugate J.*, **16**, 793-800.
- Minwalla *et al.* (2001).Inhibition of melanosome transfer from melanocytes to keratinocytes by lectins and neoglycoproteins in an in vitro model system. *Pigment Cell. Res.*, **14**, 185-194.
- Monsigny *et al.* (2007). Carbohydrate-mediated Interactions. 3.23. Neoglycoproteins. Comprehensive Glycoscience. From Chemistry to Systems Biology. Amsterdam, Elsevier. **3**, 477-521.

LEctPROFILE plate

Description

The **LEctPROFILE plate** is a lectin array (1,2) proposed by GLYcoDiag to highlight specific types of structures and/or to indicate the potential modifications of glycans with respect to reference structures. The relevant choice of a range of lectins (naturals (Table 1) or recombinants (Table 2)) makes it possible to validate the structure of glycans in a short time and with very simple basic equipment.

Each lectin are immobilized on the bottom of microtiter plates (96-well format), intended for absorbance or fluorescence interaction measurements. Up to 28 different lectins (see the list below) are proposed in a minimum format of 2 strips of 8 wells, in order to compose one or more microplates adapted to the desired analysis.

LEctPROFILE plate lectins

Reference	Short Name	Common Name
LP1222	ABA	*Agaricus Bisporus*
LP1221	AIA/Jacalin	*Artocarpus intergrifolia*
LP1367	AML	*Astragalus membranaceus*
LP1205	ASA	*Allium sativum agglutinin*
LP1889	BanLec	*Musa acuminata*
LP1209	BPA	*Bauhinia purpurea*
LP1254	CJA	*Crotalaria juncea*
LP1366	cMOL	*Moringa oleifera*
LP1201	ConA	*Canavalia ensiformis*
LP1249	CorM	*Coregonus lavaretus marenae*
LP1211	DBA	*Dolichos biflorus*
LP1206	GNL, GNA	*Galanthus nivalis*
LP1202	LcH	*Lens culinaris*
LP1252	NPA	*Narcissus pseudonarcissus Daffodil*
LP1236	MAA	*Maackia amurensis*
LP1242	MOA	*Marasmius oreades agglutinin*
LP1240	PHA-E	*Phaseolus vulgaris*
LP1239	PHA-L	*Phaseolus vulgaris*
LP1223	PNA	*Arachis hypogaea*
LP1203	PSA	*Pisum sativum*
LP1216	SBA	*Glycine max*
LP1237	SNA	*Sambucus nigra*
LP1261	TXLC-I	*Tulipa gesneriana agglutinin*
LP1234	UEA-I	*Ulex Europaeus*
LP1229	UEA-II	*Ulex Europaeus*
LP1253	VEA	*Vicia ervilia*
LP1204	VFA	*Vicia faba*
LP1230	WGA	*Triticum vulgare*

Table 1. Lists of naturals lectins available for the LEctPROFILE plate.

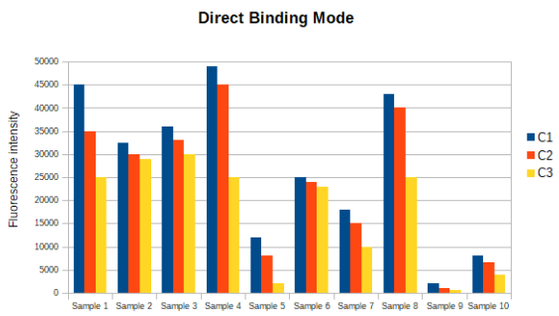
LEctPROFILE plate lectins

Reference	Short Name	Common name
LP1255	BC2L-A	*Burkholderia cenocepacia lectin A*
LP1256	BC2L-C	*Burkholderia cenocepacia lectin C (N terminal domain)*
LP1688	FimH	*Escherichia Coli Adhesin FimH*
LP2094	HPyL	*Human Polyomavirus 9 VP1*
LP1257	PA-IL	*Pseudomonas aeruginosa lectin A*
LP1259	PAII-L	*Pseudomonas aeruginosa lectin B (Lec B)*
LP2099	RPL-Fuc1	*Recombinant Prokaryotic Lectin Fuc1*
LP2095	RPL-αGal	*Recombinant Prokaryotic Lectin αGal*
LP1579	RPL-Gal1	*Recombinant Prokaryotic Lectin Gal1*
LP1580	RPL-Gal2	*Recombinant Prokaryotic Lectin Gal2*
LP1581	RPL-Gal3	*Recombinant Prokaryotic Lectin Gal3*
LP1582	RPL-Gal4	*Recombinant Prokaryotic Lectin Gal4*
LP1583	RPL-αMan	*Recombinant Prokaryotic Lectin αMannose*
LP1584	RPL-Man2	*Recombinant Prokaryotic Lectin Man2*
LP2096	RPL-Sia1	*Recombinant Prokaryotic Lectin Sia1*
LP2097	RPL-Sia2	*Recombinant Prokaryotic Lectin Sia2*
LP2098	RPL-Sia3	*Recombinant Prokaryotic Lectin Sia3*
LP1258	RSL	*Ralstonia solanacearum*

Table 2. Lists of recombinants lectins available for the LEctPROFILE plate.

Applications

The evaluation of compounds interactions with lectins is achieved by the **direct binding mode** that evaluate potential interaction of compounds ranging from pure molecule to complex mixtures (glycocojugate(s), complex carbohydrates or glycomimetics). Previous labeling of target molecule(s) by biotinylation or by fluoresceinylation is required for readout.



Name	Content	Analysis mode	Stability
LEctPROFILE plate	2 x 8 well strip per lectin used for fluorescence or absorbance detection	*Direct Binding:* until 10 samples analysed in triplicate at 3 concentrations	Each LEctPROFILE plate are stable for minimum 6 months at -20 °C

Table 3. Specifications of LEctPROFILE plates.

References

1. Hsu, K.-L., Mahal, L. K., *Sweet tasting chips: microarray-based analysis of glycans.* Cur. Opi. In Chem. Biol., **2009**, *13*, 427-432.
2. Hirabayashi, J., Yamada, M., Kuno, A., Tateno, H., *Lectin microarrays: concept, principle ans applications*, Chem. Soc. Rev., **2013**, *42*, 4443-4458.

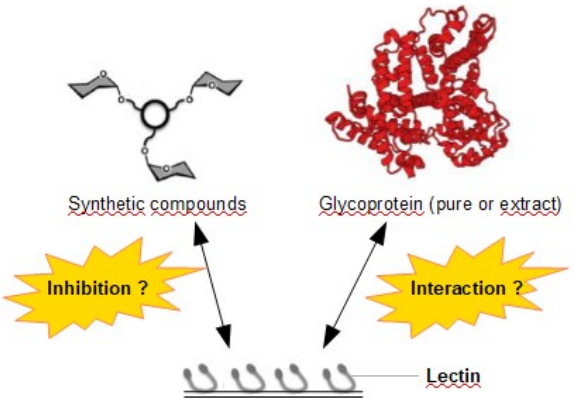
LEctPROFILE kit

Description

The **LEctPROFILE kit** allows **efficient** evaluation of crude or purified glycoconjugates interactions (*i.e.* synthetic molecules or glycoconjugates) with lectins by a simple measurement of absorbance or fluorescence. The LectPROFILE kit enables a **fast measurement** (below 3 h) and are **easily accessible to all**.

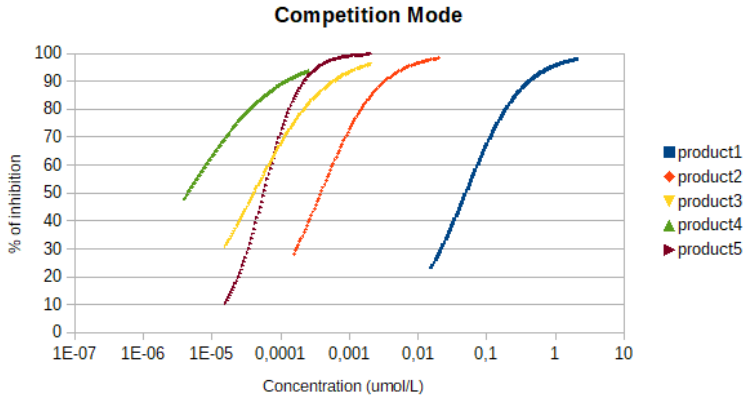
Each kit are composed of a 96-well plate immobilised with the target lectin, the corresponding tracor and the revealing solution.

All our lectins are controlled under a standardized procedure assessed by interactions with specific neoglycoproteins or glycoproteins through GLYcoPROFILE method.

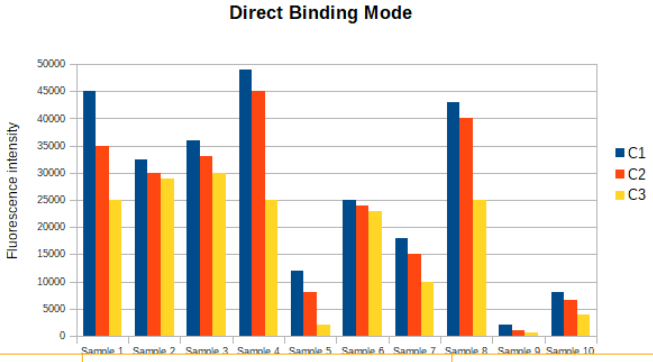


Applications

The evaluation of compounds interactions with lectins is possible by two different modes:



- **Competition Mode** : Competitive interaction between a sample and a specific labelled tracer known to have good affinity for the lectin without preliminary labeling of sample. This mode is typically used for the evaluation of the IC50-value (*i.e.* concentration corresponding to 50% of lectin inhibition), for the screening of potential candidate, for avidity comparison or for batch to batch monitoring.



- **Direct Binding** are used to evaluate potential interaction of compounds ranging from pure molecule to complex mixtures (glycocojugate(s), complex carbohydrates or glycomimetics). Previous labeling of target molecule(s) by biotinylation or by fluoresceinylation is required for readout.

Reference	Name	Specificity	Kit Content	Analysis mode	Stability
LKFimH	FimH[1] LEctPROFILE kit	High mannosylated structure glycan(s)	1 x 96 microplate well for fluorescence detection; Assay reagents: FimH tracor & Streptavidine-DTAF solutions	*Competition Mode: until 5-8 samples analysed in triplicate Direct Binding:* until 10 samples analysed in triplicate at 3 concentrations	6 months at -20 °C
	LEctPROFILE kit	-[a]	1 x 96 microplate well for fluorescence or absorbance detection; Assay reagents: lectin tracor & revealing solution	*Competition Mode: until 5-8 samples analysed in triplicate Direct Binding:* until 10 samples analysed in triplicate at 3 concentrations	-[b]

Table 1. *Specifications of LEctPROFILE kit. a. For specificity of LEctPROFILE kit, see our lectins specificities table. b. Each LEctPROFILEs kits are stable for minimum 6 months at -20 °C.*

Bibliography

1. Hartmann, M.; Lindhorst T. K.; *Eur.J.Org.Chem.*, **2011**, 3583-3609.

Description

LEctPROFILE* gels are affinity gel chromatography where lectins are immobilized on a Sepharose 4B fast flow matrix. Glycoconjugates can be recovered by competition with the specific inhibitory monosaccharide of the lectin. LEctPROFILE gels are used for the purification of glycoconjugates[1,2] with specific N-glycan residues. LectPROFILE gel are personnalized reagents produced on your request *(see the list of available naturals and recombinants lectins, Tables 1 and 2)* in 1, 2 or 5 mL. The binding capacity on LEctPROFILE gel of glycoprotein is over 1 mg per mL of gel.

Scheme 1. LEctPROFILE gel matrix.

List of lectins

Naturals lectins		
Reference	**Lectine**	**Common Name**
LG1222	ABA	*Agaricus Bisporus*
LG1221	AIA/Jacalin	*Artocarpus intergrifolia*
LG1367	AML	*Astragalus membranaceus*
LG1205	ASA	*Allium sativum agglutinin*
LG1889	BanLec	*Musa acuminata*
LG1209	BPA	*Bauhinia purpurea*
LG1254	CJA	*Crotalaria juncea*
LG1366	cMOL	*Moringa oleifera*
LG1201	ConA	*Canavalia ensiformis*
LG1249	CorM	*Coregonus lavaretus marenae*
LG1211	DBA	*Dolichos biflorus*
LG1206	GNL, GNA	*Galanthus nivalis*
LG1202	LcH	*Lens culinaris*
LG1252	NPA	*Narcissus pseudonarcissus Daffodil*
LG1236	MAA	*Maackia amurensis*
LG1242	MOA	*Marasmius oreades agglutinin*
LG1240	PHA-E	*Phaseolus vulgaris*
LG1239	PHA-L	*Phaseolus vulgaris*
LG1223	PNA	*Arachis hypogaea*
LG1203	PSA	*Pisum sativum*
LG1216	SBA	*Glycine max*
LG1237	SNA	*Sambucus nigra*
LG1261	TXLC-I	*Tulipa gesneriana agglutinin*
LG1234	UEA-I	*Ulex Europaeus*
LG1229	UEA-II	*Ulex Europaeus*
LG1253	VEA	*Vicia ervilia*
LG1204	VFA	*Vicia faba*
LG1230	WGA	*Triticum vulgare*

Table 1. Lists of naturals lectins available for the LEctPROFILE gel.

Recombinants lectins		
Reference	**Lectine**	**Common Name**
LG1255	BC2L-A	*Burkholderia cenocepacia lectin A*
LG1256	BC2L-C	*Burkholderia cenocepacia lectin C (N term domain)*
LG1688	FimH	*Escherichia Coli Adhesin FimH*
LG2094	HPyL	*Human Polyomavirus 9 VP1*
LG1257	PA-IL	*Pseudomonas aeruginosa lectin A*
LG1259	PAII-L	*Pseudomonas aeruginosa lectin B (Lec B)*
LG2099	RPL-Fuc1	*Recombinant Prokaryotic Lectin Fuc1*
LG2095	RPL-αGal	*Recombinant Prokaryotic Lectin αGal*
LG1579	RPL-Gal1	*Recombinant Prokaryotic Lectin Gal1*
LG1580	RPL-Gal2	*Recombinant Prokaryotic Lectin Gal2*
LG1581	RPL-Gal3	*Recombinant Prokaryotic Lectin Gal3*
LG1582	RPL-Gal4	*Recombinant Prokaryotic Lectin Gal4*
LG1583	RPL-αMan	*Recombinant Prokaryotic Lectin αMannose*
LG1584	RPL-Man2	*Recombinant Prokaryotic Lectin Man2*
LG2096	RPL-Sia1	*Recombinant Prokaryotic Lectin Sia1*
LG2097	RPL-Sia2	*Recombinant Prokaryotic Lectin Sia2*
LG2098	RPL-Sia3	*Recombinant Prokaryotic Lectin Sia3*
LG1258	RSL	*Ralstonia solanacearum*

Table 2. Lists of recombinants lectins available for the LEctPROFILE gel.

References

1. Misaki, A., Kakuta, M., Meah, Y., Goldstein, I. J. *J. Biol. Chem.* **1997**, *272*, 25455-25461.
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Description

CarbPROFILE gels are monosaccharides-Sepharose affinity matrices used for purification of specific carbohydrate-binding proteins[1]. The carbohydrates are attached through their non reducing hydroxyl group after pre-activation of sepharose matrix by divinylsulfone (DVS) *(see scheme 1 below).* The binding of lectins and carbohydrates binding proteins to carbohydrate affinity gel is non-covalent and reversible with high capacity. Lectins and carbohydrates binding proteins are both usually stable compounds which can be recovered by competitive elution (*i.e.* 0.2 to 0.5 M of monosaccharide) or by modulations of pH and/or ionic strength in high yield and purity.

Scheme 1. *CarbPROFILE gel matrix*

Specifications of CarbPROFILE gel

See below (Table 1), the specification of CarbPROFILE gel matrix.

Reference	Name	Specificity	Capacity *(mg of protein/mL of gel)*	Unit size[a] *(mL)*
CGF	Fucose-CarbPROFILE gel	Fucose binding protein	> 15 (based on UEA-I lectin)	5, 10 or 25
CGGa	Galactose-CarbPROFILE gel	Galactose binding protein	> 15 (based on AIA lectin)	5, 10 or 25
CGGN	N-Acetylglucosamine-CarbPROFILE gel	N-Acetylglucosamine binding protein	> 15 (based on WGA lectin)	5, 10 or 25
CGM	Mannose-CarbPROFILE gel	Mannose binding protein	> 30 (based on ConA lectin)	5, 10 or 25
CGR	Rhamnose-CarbPROFILE gel	Rhamnose binding protein	> 15 (based on CorM lectin)	5, 10 or 25

Table 1. Specifications of CarbPROFILE gel. a. *available in a pre-packed column or in suspension.*

References

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