# GLYSITE<sup>™</sup> SCOUT Glycan Screening Kits, Immunofluorescence

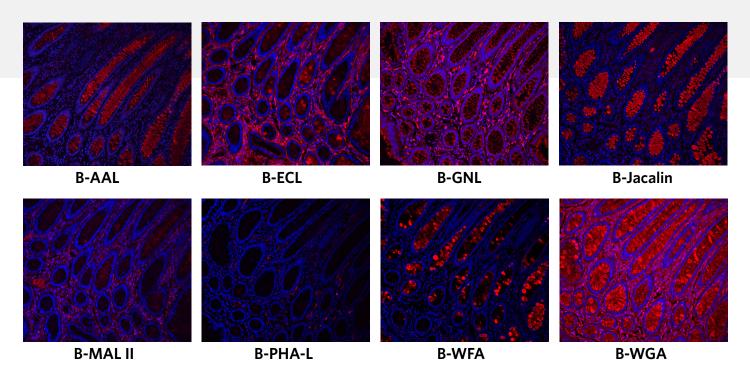


#### Your journey to deeper insights starts with Glysite Scout

Explore your tissue's sweet spot and home in on what matters most with a comprehensive view of glycan expression. Glysite Scout Glycan Screening Kits, Immunofluorescence, are fully integrated kits for the detection of glycan expression in tissue sections. Our curated lectin selection enables detection of all the major glycan motifs for the evaluation of glycan distribution in a target specimen.

Rapidly advance your research with a comprehensive view of glycan expression in your tissue sample. From biomarker discovery and validation to exploring differences in diseased and healthy tissue, these kits will help you transform your tissue insights. Ask questions that were previously beyond your reach. Start your journey of discovery and see where glyco-insights will take you.

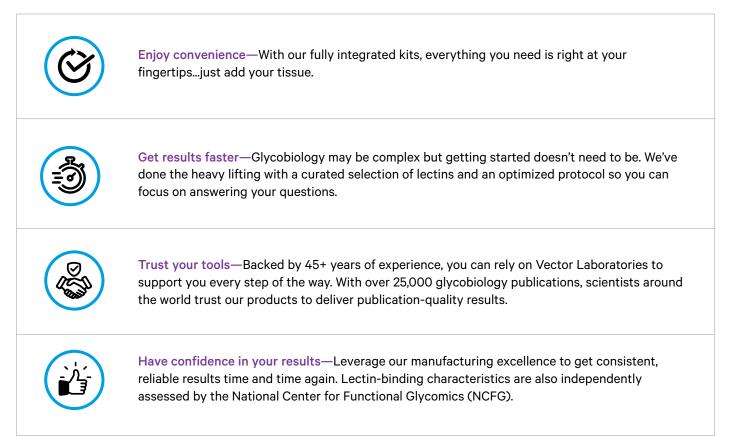




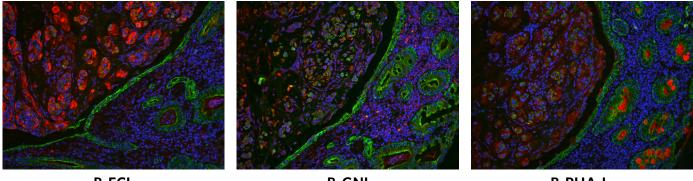
FFPE human colon carcinoma stained with Glysite Scout Glycan Screening Kit, Immunofluorescence 594 (GSK-2000, red). Nuclear detail was visualized by DAPI staining (blue). Antigen Unmasking Solution, Citrate-Based (H-3300) was used for B-GNL, B-WGA, B-ECL, B-WFA. Tissue was also treated with Vector<sup>®</sup> TrueVIEW<sup>®</sup> Autofluorescence Quenching Kit (SP-8400). Slides were imaged at 20x.

## **Glysite Scout**

#### Why Glysite Scout?



#### Investigating the distribution of glycans in a colon carcinoma

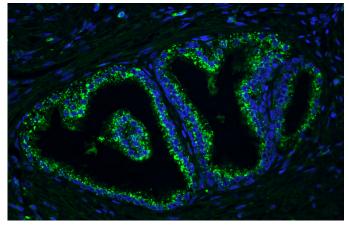


**B-ECL** 

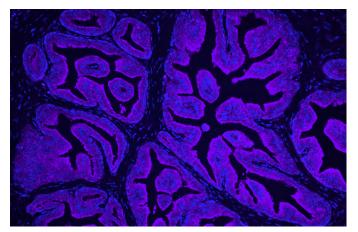
**B-GNL** 

**B-PHA-L** 

FFPE human colon carcinoma stained with Glysite Scout Glycan Screening Kit, Immunofluorescence 594 (GSK-2000, red), with colocalization of the pan-cytokeratin antibody AE1/AE3 (green). The tissue was treated with Antigen Unmasking Solution, Citrate-Based (H-3300) and Vector TrueVIEW Autofluorescence Quenching Kit (SP-8400). Nuclear detail was visualized by DAPI staining (blue). Slides were imaged at 20x. Fluorescent green staining (DyLight<sup>TM</sup> 488) illuminates the location of multiple high and low molecular weight cytokeratin proteins, stained with AE1/AE3. This staining is juxtaposed with the fluorescent red staining (DyLight 594) of lectins (B-ECL, B-GNL, and B-PHA-L) to demonstrate glycan distribution in the tumor microenvironment.



FFPE human prostate stained with Glysite Scout Glycan Screening Kit, Immunofluorescence 488 (GSK-3000, green), showing B-GNL staining. Nuclear detail was visualized by DAPI staining (blue). Tissue was treated with Vector TrueVIEW Autofluorescence Quenching Kit (SP-8400). Slides were imaged at 20x.



FFPE human prostate stained with Glysite Scout Glycan Screening Kit, Immunofluorescence 649 (GSK-1000, purple), showing B-PHA-L staining. Nuclear detail was visualized by DAPI staining (blue). Tissue was treated with Vector TrueVIEW Autofluorescence Quenching Kit (SP-8400). Slides were imaged at 20x.

### Seek and you will find

Sample prep	Deparaffinize and hydrate for FFPE. Fix and process for frozen sections. Optional antigen unmasking step, if required (H-3300 or H-3301)
Block	Block biotin/streptavidin sites Streptavidin Blocking Solution 1 × 15 min. Wash. Biotin Blocking Solution 1 × 15 min. Wash.
Wash	Block non-specific binding 1x Carbo-Free Blocking Solution 1 × 30 min.
Primary binder Wash	Incubate with Biotinylated Lectin 1 × 30 min.
Secondary detection	Incubate with DyLight Streptavidin Reagent 1 × 30 min. Optional autofluorescence quenching step, if required (SP-8400)
Mount	Mount and protect with VECTASHIELD Vibrance® Antifade Mounting Medium with DAPI.

#### Ordering information

Product	Size	Cat. No.
Glysite™ Scout Glycan Screening Kit, Immunofluorescence 649	1 kit	GSK-1000
Glysite™ Scout Glycan Screening Kit, Immunofluorescence 594	1 kit	GSK-2000
Glysite™ Scout Glycan Screening Kit, Immunofluorescence 488	1 kit	GSK-3000

#### Lectin specificity

Lectin	Binding Motifs (1)	Category
GNL, Biotinylated	Terminal $\alpha$ 1-3 or $\alpha$ 1-6 mannose	Mannose
PHA-L, Biotinylated	$\beta\text{1-6}$ branched N-glycans, Binds tri- and tetraantennary	Complex N-glycan
Jacalin, Biotinylated	Core 1 and 3 O-glycans, 3-substituted GalNAcα	Core O-glycan
AAL, Biotinylated	αFuc	Fucose
MAL II, Biotinylated	$\alpha 2\text{-}3\text{-}sialylated$ Galß1-3GalNAc in O-glycans, 3' sulfated $\beta \text{Gal}$	Sialic Acid and Sulfation
WGA, Biotinylated	Terminal GlcNAc $\beta$ , Terminal GlcNAc $\alpha$ , Terminal NAc containing glycans	GIcNAc and chitin
ECL, ECA, Biotinylated	Terminal type 2 LacNAc, Terminal type 2 LacdiNAc	Gal and LacNAc
WFA, WFL, Biotinylated	Terminal GalNAc $\beta$ , Terminal GalNAc $\alpha$ , Terminal multiantennary LacNAc	GalNAc

(1) Bohar D, et al. 2022. A Useful Guide to Lectin Binding: Machine-Learning Directed Annotation of 57 Unique Lectin Specificities. ACS Chemical Biology.

#### Kit components

Item	Amount
Carbo-Free Blocking Solution, 10x Concentrate	6 ml
VECTASHIELD Vibrance Antifade Mounting Medium with DAPI	10 ml
Streptavidin Blocking Solution	44 ml
Biotin Blocking Solution	44 ml
Streptavidin, DyLight 488 OR 594 OR 649	0.4 ml
GNL, Biotinylated (Galanthus nivalis lectin; 2 mg/ml)	0.025 ml
PHA-L, Biotinylated (Phaseolus vulgaris Leucoagglutinin; 2 mg/ml)	0.025 ml
Jacalin, Biotinylated (2 mg/ml)	0.025 ml
AAL, Biotinylated (Aleuria Aurantia lectin; 2 mg/ml)	0.025 ml
MAL II, Biotinylated (Maackia Amurensis lectin II; 2 mg/ml)	0.025 ml
WGA, Biotinylated (Wheat germ agglutinin; 2 mg/ml)	0.025 ml
ECL, ECA, Biotinylated (Erythrina Cristagalli lectin; 2 mg/ml)	0.025 ml
WFA, WFL, Biotinylated (Wisteria floribunda lectin; 2 mg/ml)	0.025 ml



The Glysite Scout Glycan Screening Kit will serve approximately 50 sections per lectin, or up to 400 sections when all lectins are used (8 lectins x 50 sections/lectin).

# For more information please visit vectorlabs.com/glysite-scout

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