



## Sialo-Profiling Kit ( $\alpha$ 2-3, $\alpha$ 2-6)

Sialylation plays a significant role in immune responses, cellular communication, pathogen recognition, cell survival, and cardiovascular disease. The differentiation of sialic acid linkages ( $\alpha$ 2-3 vs.  $\alpha$ 2-6) plays a crucial role in various diseases; for example,  $\alpha$ 2-3 sialic acid is involved in cancer progression, whereas  $\alpha$ 2-6 is involved in immune response regulation. The sialylation profiling kit includes four distinct Lectins, enabling detection and analysis of  $\alpha$ 2-3 and  $\alpha$ 2-6 sialic acid in cells and tissues. *Sambucus nigra* Lectin (SNA I) can recognize  $\alpha$ 2-6 sialic acid on sialylated glycans, whereas MAA II (*Maackia amurensis* Lectin) can recognize  $\alpha$ 2-3 on the surface. The other two Lectins (PNA & ECL) can recognize non-sialylated glycans by their unique sugar specificities. This kit provides other reagents and buffers needed for specific analyses, as well as technical support for experimental needs.

### Kit Contents:

| SKU      | Lectin  | Amount |
|----------|---|--------|
| 21510106 | <i>Sambucus nigra</i> Lectin (SNA/EBL I) - Biotinylated       | 0.5 mg |
| 21511113 | <i>Maackia amurensis</i> Lectin (MAA/MAL I+II) - Biotinylated | 0.5 mg |
| 21510020 | <i>Arachis hypogaea</i> Lectin (PNA) - Biotinylated           | 0.5 mg |
| 21510048 | <i>Erythrina cristagalli</i> Lectin (ECL/ECA) - Biotinylated  | 0.5 mg |
| 40180007 | Streptavidin :: FITC Conjugate                                | 0.5 mg |
| 40120069 | PBS Buffer 1X, pH 7.4   | 50 ml  |

### Specifications

- *Sambucus nigra* Lectin (SNA/EBL I) - Recognizes  $\alpha$ 2-6 sialic acids
- *Maackia amurensis* Lectin (MAA/MAL I+II) - Recognizes  $\alpha$ 2-3 sialic acids
- *Arachis hypogaea* Lectin (PNA) - Recognizes T antigen, an O-glycan
- *Erythrina cristagalli* Lectin (ECL/ECA) - Recognizes terminal beta 1,4-Gal
- Streptavidin :: FITC conjugate for detection



#### Technical Information

- Recommended cell number to use is 2 – 5X10<sup>6</sup> cells per analysis.
- Recommended Lectin dilution is 5 – 30 µg / mL in PBS Buffer 1X, pH 7.4.
- The assay kit is recommended for 20 tests (each Lectin/component).
- Binding efficiency depends on target cell lines and the time of incubation.
- Avoid multiple freeze-thaw cycles.
- Concentrated amounts of Lectin conjugate can cause cytotoxicity.

#### Storage and Stability:

Store frozen at -20°C in amber vials or covered with foil in appropriate aliquot sizes. Avoid freeze-thaw cycles. It can be stored at 2-8°C for short-term use. Clarify by centrifugation, if needed.

#### Applications:

1. Total/altered sialylation detection in cellular communication, pathogen recognition, cell survival, and cardiovascular disease (Live cells, Plasma, Serum, Tissues).
2. Lectins, enabling detection and analysis of (α2-3 and α2-6) sialic acid in cells and tissues.
3. Detection of T – antigen (O Glycans).
4. Flow/IHC-based detection.

#### Other Related Products:

| SKU      | Item                               |
|----------|------------------------------------|
| 21511021 | Lectin Screening Kit 2 – FITC      |
| 21511019 | Lectin Screening Kit 2 – Cy3       |
| 21511020 | Lectin Screening Kit 2 – Cy5       |
| 21511022 | Lectin Screening Kit 2 - Rhodamine |
| 21511420 | Lectin Screening Kit 2 - HRP       |

Visit [www.glycomatrix.com](http://www.glycomatrix.com) or [www.bio-world.com](http://www.bio-world.com) for a comprehensive selection of Lectins and related products.



## References:

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