biotium Glowing products for science

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Lycopersicon Esculentum (Tomato) Lectin (LEL, TL) Conjugates

Tomato lectin (LEL, TL) CF® Dye conjugates that bind to [GlcNAc] 1,3-N-acetylglucosamine, glycophorin, and Tamm-Horsfall glycoprotein. LEL, TL is a commonly used marker for blood vessels and microglial cells in rodent and neuroscience research. Biotium offers tomato lectin conjugated to biotin and a selection of 6 bright and photostable CF® Dyes.

Product attributes

Probe cellular localization	Membrane/cell surface
For live or fixed cells	For fixed cells, For live/intact cells
Cell permeability	Membrane impermeant
Fixation options	Fix before staining (formaldehyde), Fix after staining (formaldehyde), Fix before staining (methanol), Fix after staining (methanol), Permeabilize after staining
Colors	Green, Red, Far-red, Near-infrared

Product Description

Lycopersicon esculentum (Tomato) lectin (LEL, TL) is a stable single-subunit glycoprotein composed of 50 percent arabinose and galactose. The lectin binds to [GlcNAc] 1,3-N-acetylglucosamine, glycophorin, and Tamm-Horsfall glycoprotein. Tomato lectin is a commonly used marker for blood vessels and microglial cells in rodent and neuroscience research. The lectin is also a useful label for rodent tumor angiogenesis studies and in the tracing of neovascular development in xenograft models. The lectin may be used to stain tissue sections. Biotium offers tomato lectin conjugated to biotin and a selection of 6 bright and photostable CF® Dyes.

- Marker for blood vessels and microglial cells
- Binds to [GlcNAc] 1,3-N-acetylglucosamine, glycophorin, and Tamm-Horsfall glycoprotein
- Used to study tumor angiogenesis or tracing neovascular development in xenograft models
- Suitable for immunofluorescence staining in tissue sections
- Choice of 6 CF® Dyes or biotin
- Supplied at 1 mg/mL in 10 mM HEPES pH 7.5, 0.15 M NaCl, 0.08% sodium azide, 0.1 mM $CaCl_2$

Note: CF® Dye LEL, TL conjugates are formulated with sodium azide and are not suitable for use *in vivo* or live cell culture

Find the Right Stain for Your Application

Tomato lectin and other lectins are carbohydrate binding proteins that recognize specific sugar moieties on glycoproteins. The presence and distribution of these targets vary between cell types and tissues. As a result, other cell surface stains or other lectin conjugates, *Ulex europaeus* agglutinin I (UEA I), *Datura stramonium* (DSL), *Phaseolus vulgaris* leucoagglutinin (PHA-L), Wheat Germ Agglutinin (WGA) conjugates, Concanavalin A (Con A) and *Arachis hypogaea* (PNA) conjugates, may produce better surface staining and may be more appropriate for your cell type. Lectin conjugates can be used to selectively stain the cell surface of live cells, and withstand fixation and permeabilization. When cells are fixed and permeabilized before staining, fluorescent lectins stain both cell surface and organelles in the secretory pathway. Lectins may be toxic or stimulatory to live cells depending on cell type. To find the right stain for your application, see our Membrane & Cell Surface Stains Comparison. See our Cellular Stains Table for more information on how our dyes stain various organisms.

Superior CF® Dyes

Biotium's next-generation CF® Dyes were designed to be highly water-soluble with advantages in brightness and photostability compared to other fluorescent dyes. Learn more about CF® Dyes.

Lycopersicon Esculentum (Tomato) Lectin (LEL, TL) Conjugates

Conjugation	Ex/Em	Size	Catalog No.	Dye Features
CF®488A	490/516 nm	1 mL	29103	CF®488A Features
CF®568	562/584 nm	1 mL	29104	CF®568 Features
CF®594	593/615 nm	1 mL	29105	CF®594 Features
CF®640R	642/663 nm	1 mL	29106	CF®640R Features
CF®680	681/698 nm	1 mL	29107	CF®680 Features
CF®740	742/767 nm	1 mL	29132	CF®740 Features
Biotin	N/A	1 mL	29012	

Full List of Lectin Conjugates

Product	Features
CF® Dye Concanavalin A (Con A)	• Cell surface stain for yeast, fungi, and mammalian cells • Selectively binds to a-mannopyranosyl and a-glucopyranosy residues • Available with a wide selection of CF® Dyes

Product	Features
CF® Dye Wheat Germ Agglutinin (WGA)	• Cell surface stain for mammalian cells and gram+ bacteria • Also stains yeast bud scars • Has high affinity for sialic acid and N-acetylglucosamine • Choose from a wide selection of CF® Dyes or HRP
CF® Dye Peanut Lectin (PNA) from Arachis hypogaea	• Specific for terminal β-galactose and binds preferentially to galactosyl (β-1,3) N-acetylgalactosamine • Choice of 4 CF® dye colors
CF® Dye Lycopersicon Esculentum (Tomato) Lectin (LEL, TL)	• Marker for blood vessels and microglial cells • Binds to [GlcNAc] 1,3-N-acetylglucosamine, glycophorin, and Tamm-Horsfall glycoprotein • Used to study tumor angiogenesis or tracing neovascular development in xenograft models • Choice of 5 CF® Dyes or biotin
CF® Dye Ulex Europaeus Agglutinin I (UEA I)	• Marker for human endothelial cells and incompletely differentiated gastrin cells • Binds to glycoproteins and glycolipids containing α-linked fucose residues • Choice of 5 CF® Dyes or biotin
CF® Dye Phaseolus Vulgaris Leucoagglutinin (PHA-L)	• Used to stimulate lymphocyte and T cell proliferation • Choice of 5 CF® Dyes or biotin
CF® Dye Datura Stramonium Lectin (DSL)	• Binds to (beta-1,4) linked N-acetylglucosamine oligomers • Choice of 5 CF® Dyes or biotin
CF® Dye Sambucus Nigra Lectin (SNA, EBL))	• Binds to sialic acid attached to terminal galactose • Choice of 6 CF® Dyes or biotin