Wheat Germ Agglutinin (WGA) Conjugates

A wheat germ agglutinin (WGA) lectin labeled with Biotium's CF® Dyes, biotin, or HRP. It is a carbohydrate-binding lectin that has high affinity for sialic acid and N-acetylglucosamine and stains yeast bud scars as well as the cell membrane of gram+ bacteria and mammalian cells.

Product Description

Wheat germ agglutinin (WGA) is a carbohydrate-binding lectin that has high affinity for sialic acid and N-acetylglucosamine moieties of glycoproteins. As a result, WGA conjugates will label yeast bud scars and the cell membrane of gram bacteria and mammalian cells.

- Stain yeast bud scars as well as the cell membrane of gram bacteria and mammalian cells or tissues
- Suitable for Western Blot, ELISA, immunohistochemistry and other standard immunoassay applications
- A retrograde or anterograde neuronal tracer
- Withstands fixation and permeabilization
- Choice of 15 CF® Dyes from UV to near-infrared, biotin, or HRP
- Superior CF® Dyes are bright, photostable, and water-soluble

WGA is commonly used to label glycoproteins for imaging of the plasma membrane in live or fixed cells, for staining of tissue sections, or for western blotting. WGA can be used as a gram stain to fluorescently label gram bacteria but not gram- bacteria. WGA also binds to the bud scars on budding yeast such as *Saccharomyces cerevisiae*.

Find the Right Stain for Your Application

WGA 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, Concanavalin A (Con A) Conjugates and PNA Lectin 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 Alexa Fluor®, DyLight®, and other fluorescent dyes. Learn more about CF® Dyes.

Note: Conjugates of blue-fluorescent dyes like CF®350, CF®405S and CF®405M are not recommended for detecting low abundance targets and may be challenging to use in tissue specimens. Blue dyes have lower fluorescence and photostability, and cells and tissue have high autofluorescence in blue wavelengths, resulting in lower signal to noise compared to other colors.

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	Blue, Green, Orange, Red, Far-red, Near-infrared
Storage Conditions	See Product Information Sheet for details, Store at -10 to -35 °C, Protect fluorescent conjugates from light, After reconstitution store at 2-8°C for up to 1 week, or at -10 to -35°C for up to 12 months
Reconstitution	Dissolve 1 mg conjugate in 1 mL dH2O
Antibody/conjugate formulation	Lyophilized, 1 mg/mL in 1X PBS after reconstitution
Application Notes	Recommended staining concentration 1-5 ug/mL, See Product Information Sheet for detailed protocols
Shelf life	Guaranteed for at least 12 months from date of receipt when stored as recommended

Wheat Germ Agglutinin Conjugates

Product	Conjugation	Ex/Em	Size	Catalog No.	Purchase
CF®350 WGA	CF®350	347/448 nm	1 mg	29021-1	Purchase 29021-1
5 mg	29021	Purchase 29021			
CF®405S WGA	CF®405S	404/431 nm	1 mg	29027-1	Purchase 29027-1
5 mg	29027	Purchase 29027			
CF®405M WGA	CF®405M	408/452 nm	1 mg	29028-1	Purchase 29028-1
5 mg	29028	Purchase 29028			
CF®488A WGA	CF®488A	490/515 nm	1 mg	29022-1	Purchase 29022-1
5 mg	29022	Purchase 29022			
CF®532 WGA	CF®532	527/558 nm	1 mg	29064-1	Purchase 29064-1
5 mg	29064	Purchase 29064			
CF®555 WGA	CF®555	555/565 nm	5 mg	29076	Purchase 29076
1 mg	29076-1	Purchase 29076-1			
CF®568 WGA	CF®568	562/583 nm	5 mg	29077	Purchase 29077
1 mg	29077-1	Purchase 29077-1			
CF®594 WGA	CF®594	593/614 nm	1 mg	29023-1	Purchase 29023-1
5 mg	29023	Purchase 29023			
CF®633 WGA	CF®633	630/650 nm	1 mg	29024-1	Purchase 29024-1
5 mg	29024	Purchase 29024			
CF®640R WGA	CF®640R	642/662 nm	1 mg	29026-1	Purchase 29026-1
5 mg	29026	Purchase 29026			
CF®680 WGA	CF®680	681/698 nm	1 mg	29029-1	Purchase 29029-1
5 mg	29029	Purchase 29029			
CF®680R WGA	CF®680R	680/701 nm	1 mg	29025-1	Purchase 29025-1
5 mg	29025	Purchase 29025			
CF®740 WGA	CF®740	742/767 nm	1 mg	29128-1	Purchase 29128-1
5 mg	29128	Purchase 29128			
CF®770 WGA	CF®770	770/797 nm	1 mg	29059-1	Purchase 29059-1
5 mg	29059	Purchase 29059			
CF®790 WGA	CF®790	783/808 nm	1 mg	29144-1	Purchase 29144-1
5 mg	29144	Purchase 29144			
Biotin WGA	Biotin	N/A	1 mg	29095-1	Purchase 29095-1
5 mg	29095	Purchase 29095			
HRP WGA	HRP	N/A	1 mg	29073	Purchase 29073

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
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 6 CF® dye colors

Product	Features
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 7 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 7 CF® Dyes or biotin
CF® Dye Phaseolus Vulgaris Leucoagglutinin (PHA-L)	• Used to stimulate lymphocyte and T cell proliferation • Choice of 7 CF® Dyes or biotin
CF® Dye Datura Stramonium Lectin (DSL)	• Binds to (beta-1,4) linked N-acetylglucosamine oligomers • Choice of 7 CF® Dyes or biotin
CF® Dye Sambucus Nigra Lectin (SNA, EBL))	• Binds to sialic acid attached to terminal galactose • Choice of 7 CF® Dyes or biotin

References

Download a list of curated CF® Dye references.

This datasheet was generated on January 30, 2026 at 11:57:47 PM. Visit product page to check for updated information before use.
Product link: https://biotium.com/product/wheat-germ-agglutinin-wga-cf-dye-conjugates/