

## ATTO™ – derivatives

- Polysaccharides labeled with:  
**ATTO488™** ( $\lambda_{ex}$ : 502 nm,  $\lambda_{fl}$ : 524 nm)  
**ATTO647N™** ( $\lambda_{ex}$ : 646 nm,  $\lambda_{fl}$ : 664 nm)
- High fluorescence quantum yield
- Readily soluble in water

### Areas of application:

- Permeability and microcirculation studies
- Suitable for studies involving single-molecule detection, high-resolution microscopies, FACS, FISH, etc.

### Products:

**ATTO488™**-dextran (4 kDa)

**ATTO488™**-lysine-dextran (10 kDa)

**ATTO647N™**-lysine-dextran (70 kDa)



## Eosin Y – derivatives

- Strong orange fluorescence at basic pH
- Readily soluble in water and DMSO

### Areas of application:

- Cell & tissue imaging, cell permeability studies, fluorescent nanocarrier, pH indicator

### Products:

**Eosin-Y**-dextran 10 (10 kDa)

( $\lambda_{ex}$ : 532 nm,  $\lambda_{fl}$ : 555 nm)

**Eosin-Y**-lysine-dextran 500 (500 kDa)

( $\lambda_{ex}$ : 530 nm,  $\lambda_{fl}$ : 548 nm)



Our customers speak!

*Peter Corridon (Khalifa University, UAE)*

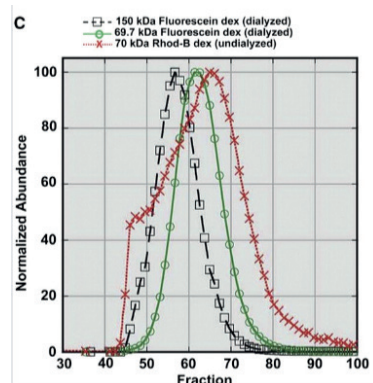
"My research has revolved around fluorescent molecules for the past 15 years, and I have been using fluorescent-dextran products from TdB Labs since more than a decade as I am extremely satisfied with the quality of fluorescence both in-vitro and in-vivo".

*Benjamin Heller Sahlgren (Karolinska Institutet, Sweden)*

"I bought 2-Antonia Red Deoxyglucose from TdB Labs AB, that was produced as a CSP (Customer Specific Product) to measure glucose uptake in cells. We are quite satisfied with the quality of the product. The possibility to provide a CSP that didn't exist elsewhere and it being reasonably priced along with our previous record of buying high quality dextrans from TdB Labs made us choose you for this product as well".

*Ruben M Sandoval (Indiana Univ. School of Medicine, USA)*

"Using TdB's premium products with narrow fractions will give you consistent, interpretable results that will be comparable to subsequent studies down the line".



Elution profiles from the gel filtration column (Ref 1).  
**Red line:** 70 kDa rhodamine B dextran from another supplier  
**Green line:** 69.7 kDa FITC dextran from TdB Consultancy AB (TdB Labs AB)  
**Black line:** 150 kDa FITC dextran from TdB Consultancy AB (TdB Labs AB)

- Narrower elution profiles of 69.7 kDa & 150 kDa FITC-dextrans indicate that these polymers are more uniform in size.
- Broader elution profile of the 70 kDa rhodamine B dextran indicates a large size dispersion.

(1) Sandoval RM, Wagner MC, Patel M, et al. Multiple factors influence glomerular albumin permeability in rats. J Am Soc Nephrol. 2012;23(3):447-57

## Fluorescent dye panel

Dye	$\lambda_{abs}$ (nm)	$\lambda_{fl}$ (nm)
ATTO488	490	525
FITC	495	520
TRITC	557	576
Antonia Red	584	600
ATTO647n	646	664

Can't find what you are looking for?  
 We can always produce a customised product for you!

### CONTACT US

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## Fluorescent Polysaccharides

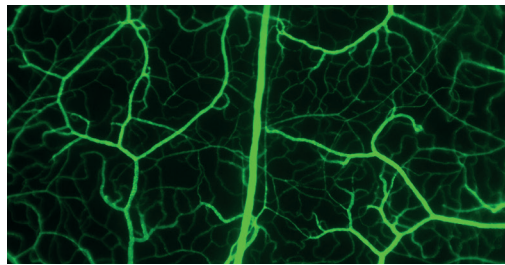
- Exceptional quality
- Guaranteed reliability
- Reproducible results
- Customised products
- Customer satisfaction

## FITC - derivatives

- Green fluorescence
- ( $\lambda_{ex}$ : 490 - 495 nm,  $\lambda_{fl}$ : 520  $\pm$  5 nm)
- Highly sensitive to pH
- Readily soluble in water

### Areas of application:

- Permeability and microcirculation studies
- Research on drug delivery
- Serve as a molecular size marker



Hamster cheek pouch injected with FITC-dextran (150 kDa)

### Products:

- FITC**-dextran (4-2000 kDa)
- FITC**-lysine-dextran (4-500 kDa)
- FITC**-CM-dextran (4-150 kDa)
- FITC**-CM-polysucrose (70 kDa)
- FITC**-DEAE-dextran (4-150 kDa)
- FITC**-dextran sulfate (4-500 kDa)
- FITC**-inulin (4.5 kDa)
- FITC**-polysucrose (20-400 kDa)
- FITC**-Q-dextran (10 kDa)
- FITC**-hydroxyethyl starch (200 kDa)
- FITC**-trehalose (0.732 kDa)
- Fluorescein** Hyaluronic Acid (1500 kDa)



## TRITC - derivatives

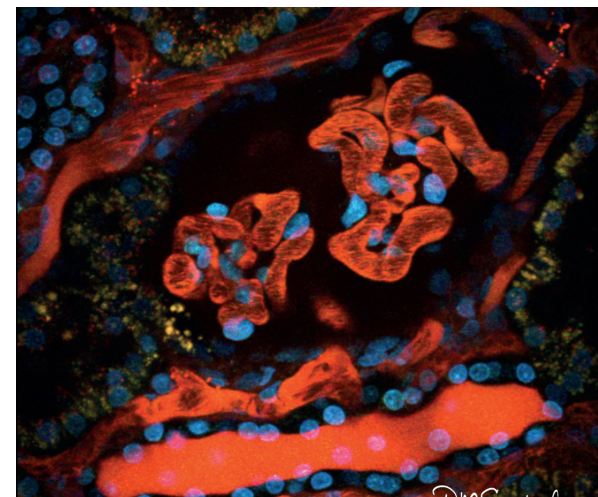
- Red fluorescence
- ( $\lambda_{ex}$ : 550 nm,  $\lambda_{fl}$ : 572 nm)
- Non-pH dependent
- Readily soluble in water

### Areas of application:

- Permeability and microcirculation studies
- Research on drug delivery
- Serve as a molecular size marker

### Products:

- TRITC**-dextran (4-2000 kDa)
- TRITC**-lysine-dextran (4-500 kDa)
- TRITC**-polysucrose (20-400 kDa)
- Tetramethylrhodamine** Hyaluronic Acid (1500 kDa)



Intravital, 2-photon image of a rat kidney shows a short 3D volume of a glomerulus at the center with TRITC-Ficoll (40 kDa) being administered.

## Antonia Red™ - derivatives

- Red-shifted dye, bright fluorescence ( $\lambda_{ex}$ : 583 nm,  $\lambda_{fl}$ : 602 nm)
- Non-pH dependent
- High photo- and chemical stability
- Readily soluble in water

### Areas of application:

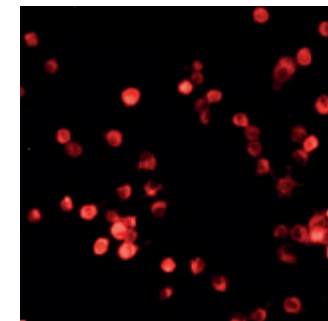
- Permeability and microcirculation studies
- Research on drug delivery
- Serve as a molecular size marker

### Products:

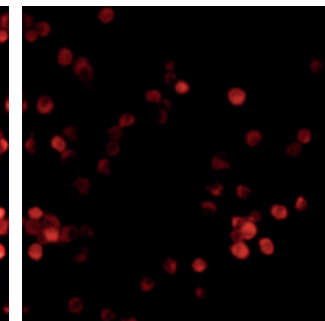
- Antonia Red™**-dextran (4 -150 kDa)
- Antonia Red™**-lysine-dextran (4 -150 kDa)



**Antonia Red™**, the dye uniquely crafted in our lab for superior performance!



Antonia Red-dextran from TdB Labs AB



Texas Red-dextran from another supplier

## pH probes

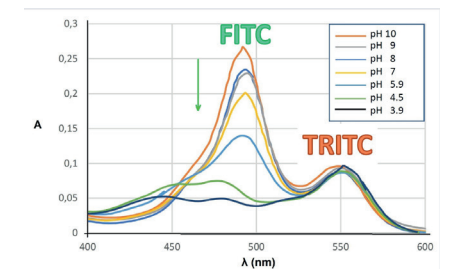
- Strong green fluorescence at basic pH
- Contains both pH-dependent (FITC) and pH-independent dyes (TRITC and Antonia Red™)
- Readily soluble in water and DMSO

### Areas of application:

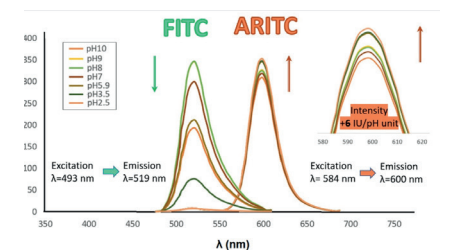
- Suitable for fluorescence imaging, intravital microscopy, accurate determination and monitoring of pH in living cells or tissues, etc.

### Products:

- FITC-TRITC**-dextran 500 (500 kDa) ( $\lambda_{ex}$ : 493-550 nm,  $\lambda_{fl}$ : 517-575 nm)
- FITC-Antonia Red**-dextran 20 (20 kDa) ( $\lambda_{ex}$ : 493-585 nm,  $\lambda_{fl}$ : 517-600 nm)



UV-Vis spectra of FITC impacted by pH



UV-Vis spectra of FARD impacted by pH