

## Dextran Conjugates

**Table 1. Products and Storage**

Cat. No.	Product Name	Ex/Em (nm)	Unit	Storage	Stability
C070	Dextran, Amino, 10,000 MW	-	1 g	-20 °C	The product is stable for one year when stored as directed.
C071	Dextran, Fluorescein, 10,000 MW	494/521	10 mg	-20 °C	
C072	Dextran, Oregon Green 488, 10,000 MW	496/524	10 mg	-20 °C	
C073	Dextran, Tetramethylrhodamine, 10,000 MW	555/580	10 mg	-20 °C	
C074	Dextran, ROX, 10,000 MW	575/602	10 mg	-20 °C	

### Introduction

Dextran conjugates are hydrophilic polysaccharides with low toxicity that can be used for tissue sections, *in vivo* neurons, and cultured cells. These dextran conjugates are fixable and can be treated with formaldehyde or glutaraldehyde.

These dextran conjugates can be used for a variety of applications such as cell lineage tracing, neuronal tracing, investigating cell-cell communication in gap junctions, or tracking endocytosis and pinocytosis.

### Applications of Dextran Conjugates

#### Cell Lineage

Dextran conjugates have been used extensively by developmental biologists for tracing cell lineage because of their excellent retention properties and low toxicity.

#### Neuronal Tracing

Dextran conjugates are routinely employed to trace neuronal projections and can function efficiently as anterograde or retrograde tracers, depending on the study method and tissue type used.

#### Endocytosis

Fluorescent dextran conjugates have been used to monitor the uptake and internal processing of exogenous materials by endocytosis. Our dextran conjugates may also be useful for studies of endosome fusion, cell membrane changes, and vesicular morphology.

#### Fluid Dynamics

Fluorescent dextrans have been used in studies of macromolecular diffusion through cytoplasm, fluid flow velocity, liposome encapsulation, and vascular flow in whole animals. Monitoring the diffusion of the dextran tracer is typically accomplished using fluorescence recovery after photobleaching (FRAP) techniques, or by photoactivation of caged fluorophore-dextran conjugates.