

Bovine Serum Albumin (BSA), AF 647 conjugate

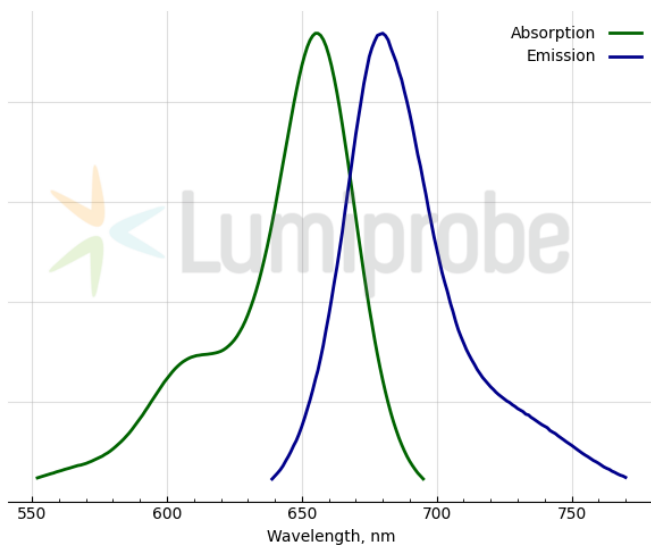
<http://www.lumiprobe.com/p/af647-bsa>

This product is a ready-to-use fluorescent conjugate of Bovine Serum Albumin (BSA) coupled to the bright, photostable far-red dye AF 647. It is utilized for a wide range of applications in cell biology, neurobiology, immunology, and biochemistry—including tracking endocytosis and intracellular transport; investigating tissue and cellular barrier permeability, cerebrospinal fluid (CSF) flow, and glymphatic system function; as well as assessing the distribution and delivery of biomolecules and nanoparticles within living systems.

Thanks to a precisely defined dye-to-protein ratio (DOL), these fluorescent BSA conjugates serve as reference standards for calibrating fluorescence intensity, monitoring photostability, and performing quantitative analysis in fluorescence microscopy, flow cytometry, and other fluorescence-based analytical techniques.

AF 647 exhibits high photostability and maintains stable fluorescence across a broad pH range (4-10), ensuring a reliable signal even in acidic intracellular compartments such as endosomes and lysosomes. In terms of brightness and photostability, AF 647 outperforms many traditional dyes, making it particularly well-suited for long-term observations, multiplex imaging, and super-resolution microscopy techniques.

The spectral properties of AF 647 are optimized for use with 633–640 nm lasers and the standard Cyanine5/APC detection channels found in most confocal microscopes and flow cytometers. Operating within the far-red region of the spectrum helps minimize the impact of biological sample autofluorescence and enhances the signal-to-noise ratio during tissue and cell imaging. The conjugate is a lyophilized powder that dissolves readily in aqueous buffer solutions. The product requires no additional purification, thereby reducing sample preparation time.



Absorption and emission spectra of AF 647

General properties

Appearance:	blue solid
Solubility:	water
Quality control:	spectrophotometry
Storage conditions:	24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm: 655

ϵ , L·mol⁻¹·cm⁻¹: 191800

Emission maximum, nm: 680

Fluorescence quantum yield: 0.15

CF₂₆₀: 0.09

CF₂₈₀: 0.08