

Bovine Serum Albumin (BSA), sulfo-Cyanine7.5 conjugate

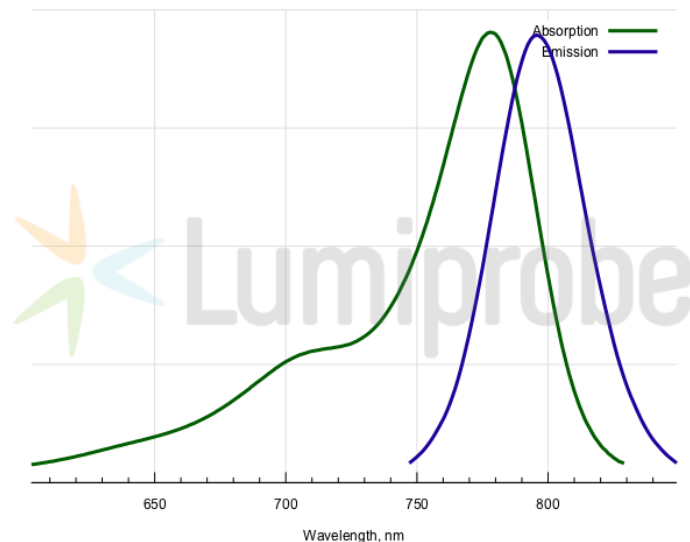
<http://www.lumiprobe.com/p/sulfo-cy75-bsa>

This product is a ready-to-use fluorescent conjugate of Bovine Serum Albumin (BSA) with sulfo-Cyanine7.5, a bright, photostable dye emitting in the near-infrared (NIR) region. Its spectral purity and hydrophilicity make it suitable for both *in vivo* and *in vitro* studies in cell biology, neurobiology, immunology, and pharmacokinetics. It can be utilized to track endocytosis and intracellular transport, investigate the permeability of cellular barriers, analyze cerebrospinal fluid (CSF) dynamics and glymphatic system function, and validate targeted drug delivery systems—including the real-time assessment of their biodistribution.

Its precisely defined Degree of Labeling (DOL) enables the use of sulfo-Cyanine7.5 BSA as a reference standard for calibrating fluorescence intensity and monitoring photobleaching across a wide spectrum of techniques—ranging from super-resolution fluorescence microscopy to flow cytometry and optical tomography.

sulfo-Cyanine7.5 is structurally similar to Indocyanine Green (ICG) but has a higher fluorescence quantum yield. Its excitation and emission maxima match the tissue transparency window (700–900 nm), enabling deep signal penetration, minimal tissue autofluorescence, and a high signal-to-noise ratio for visualizing internal structures and processes. The dye resists photodegradation, allowing prolonged time-lapse imaging without signal loss. Fluorescence remains stable over pH 4–10, supporting a consistent signal across varied cellular environments.

The conjugate is supplied as a lyophilized powder that rapidly reconstitutes in aqueous buffer solutions to the desired concentration. The product is fully ready for use immediately upon dissolution and requires no labor-intensive purification to remove unbound dye or aggregates.



Absorption and emission spectra of sulfo-Cyanine7.5

General properties

Appearance:	green 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:	778
ϵ , L·mol ⁻¹ ·cm ⁻¹ :	222000
Emission maximum, nm:	797
Fluorescence quantum yield:	0.21
CF ₂₆₀ :	0.09
CF ₂₈₀ :	0.09