

## AMCA streptavidin

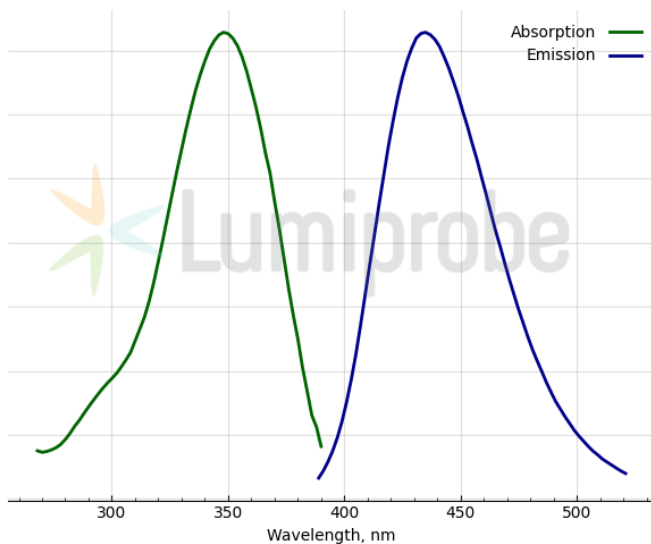
<http://www.lumiprobe.com/p/streptavidin-amca>

Streptavidin is a tetrameric biotin-binding protein derived from the bacterium *Streptomyces avidinii*. Streptavidin binds up to four biotin molecules with high affinity and selectivity via multiple hydrogen bonds and van der Waals interactions. Due to the lack of carbohydrate modifications and a near-neutral pI, streptavidin exhibits less nonspecific binding than another biotin-binding protein — avidin. Streptavidin also has high thermostability and resistance against extreme pH, denaturing agents, and enzymatic degradation, allowing using this protein under various experimental conditions.

Fluorescent conjugates of streptavidin are commonly used as a second-step reagent for specific detection of a variety of biotin-labeled biomolecules, such as proteins (antibodies, etc.), nucleic acids, lipids, and other molecules in indirect immunofluorescent staining, western blots, flow cytometry, microplate assays, and other detection techniques.

This streptavidin is a lyophilized conjugate with AMCA, one of the brightest blue fluorescent dyes.

The recommended concentration range for use is 0.5-10 µg/mL. Avoid using biotin-containing solutions (some serums, RPMI 1640, etc.) as diluents.



**Absorption and emission spectra of AMCA**

### General properties

|                     |  |
|---------------------|--|
| Appearance:         | white solid  |
| Solubility:         | good in water  |
| Quality control:    | Functional test, gel electrophoresis   |
| Storage conditions: | Transportation: at room temperature for 1 week. Store at -20°C 9 months.   |
| 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:                   | 348   |
| $\epsilon$ , L·mol <sup>-1</sup> ·cm <sup>-1</sup> : | 17400 |
| Emission maximum, nm:                                | 435   |
| Fluorescence quantum yield:                          | 0.91  |