

SR101 Astroglia Stain

<http://cn.lumiprobe.com/p/sulforhodamine-101>

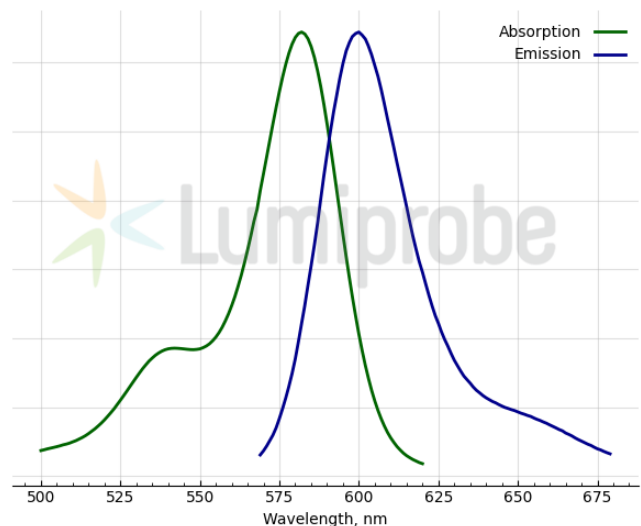
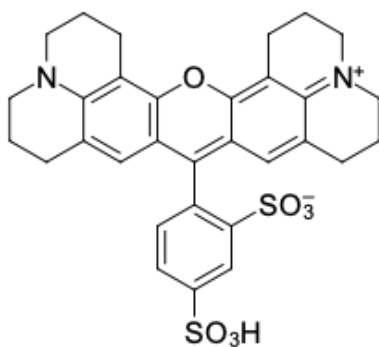
Sulforhodamine 101 (SR101) is a water-soluble, photostable fluorescent dye widely used for labeling live astrocytes.

In live-cell imaging, extracellular application of SR101 results in its preferential uptake by astrocytes, facilitating clear visualization of their morphology and network integrity without significant staining of neurons. It makes SR101 an indispensable tool for *in vivo* studies of glial function and cytoarchitecture ^[1].

SR101 labels astrocytes primarily via an active transport mechanism involving the specific cellular transporter OATP1C1, which is preferentially expressed in astroglial cells. OATP1C1 selectivity is not absolute and can be influenced by several factors ^[2]. Also, SR101 can spread from astrocytes to mature oligodendrocytes via gap junctions ^[3].

SR101 can also be used as an effective fluorescent tracer to investigate vascular perfusion, gap junction permeability, and fluid dynamics, thanks to its high hydrophilicity and bright emission. Furthermore, its structural similarity to Rose Bengal allows it to function as an efficient photosensitizer in photodynamic therapy research.

^[1] Nat. Methods. 2004. 1(1):31-37; ^[2] Brain Struct. Funct. 2015. 220:193-203; ^[3] Nat. Methods. 2014. 11(11):1081-1082.



外观:
分子 606.72
量:
CAS 60311-02-6
编号:
分子 C₃₁H₃₀N₂O₇S₂
式:
质量 NMR ¹H和HPLC-MS (95+%)
控制:
储存
条件:
法律声明: 本产品仅供研究目的提供和销售。 本产品并未经过食品、药品、医疗器械、化妆品等领域的安全性和效力测试, 且未经明示或暗示授权用于其他任何用途, 包括但不限于体外诊断、人类或动物用途, 以及商业用途。

激发/吸收
极大值,
纳米:

发射
极大
值，
纳
米：
0.79
荧光
量子
产
率：