

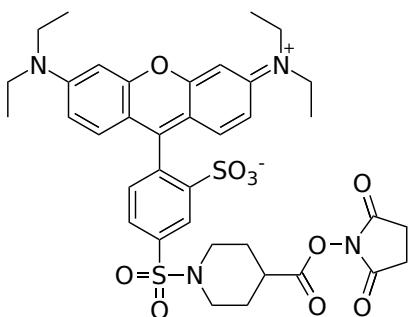
LRB Red™ SE

Catalog Number: 471
Unit Size: 10 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid purple
Molecular Weight	766.88
Soluble In	DMSO
Chemical Structure	 The chemical structure of Lissamine Rhodamine B is shown. It features a central quaternary ammonium nitrogen atom bonded to two propyl groups. This is flanked by two 4,4'-biphenol units, each consisting of a biphenol core with a propyl group at the 4-position and a sulfonyl group (SO3-) at the 4'-position. Below the biphenol units is a succinimidyl ester group, consisting of a cyclohexane ring with a carboxylic acid group (COOH) at one position and a 4-aminophenyl group (O-NH2) at another, linked via an ester bond (O-C(=O)-C(=O)-O-).

Spectral Properties

Excitation Wavelength	558 nm
Emission Wavelength	575 nm

Applications

Although Lissamine Rhodamine B chloride is one of the most popular labeling reagents of sulfonyl chloride, it is quite unstable in water. Even in anhydrous DMF, Lissamine Rhodamine B chloride tends to give a very complicated reaction mixture. It reacts with thiols, alcohols, phenols, aliphatic amines and aromatic amines indiscriminately. LRB Red™ is a succinimidyl ester and has the spectral properties identical to those of Lissamine Rhodamine B chloride. LRB Red™ is a superior replacement for Lissamine Rhodamine B chloride. LRB Red™ only reacts with aliphatic amines such as amino acids, peptides and proteins to give bright red fluorescent conjugates that are extremely stable. Compared to Lissamine Rhodamine B chloride, LRB Red™ has much higher labeling efficiency, and more importantly the resulted conjugates are much easier to be purified due to its much cleaner reactions. We strongly recommend that you consider using LRB Red™ to replace Lissamine Rhodamine B chloride for labeling peptides and oligonucleotides.