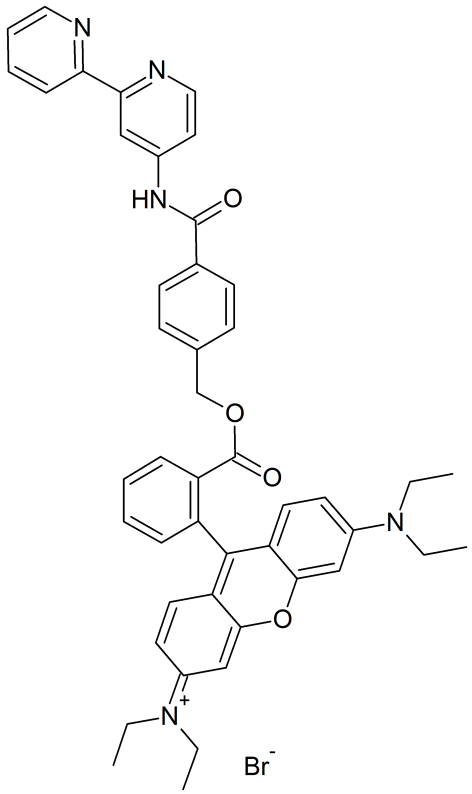
PRODUCT INFORMATION

ME042.1 (1 mg)
ME042.2 (5 mg)

Product Name: Rhodamine B[(2,2'-bipyridine-4-yl)aminocarbonyl]-benzyl ester (RDA)



Product Specifications

catalogue no.:	ME042
chemical name:	Rhodamine B[(2,2'-bipyridine-4-yl)aminocarbonyl]benzyl ester (RDA)
synonyms:	RDA
IUPAC name:	9[2({[4(2,2'-bipyridin-4-ylcarbamoyl)benzyl]oxy}carbonyl)phenyl]6(diethylamino)-N,N-diethyl-3H-xanthen-3-iminium bromide
molecular formula:	$C_{46}H_{44}BrN_5O_4$
molecular weight [g/mol]:	810.7767 (79.9045+730.8721)
CAS:	[-]
purity:	97%+
category:	Medchem Compounds
melting point:	n.d.
boiling point:	n.d.
appearance:	purple solid
solubility:	DMSO
long term storage:	4°C, stored dry and protected from light
NMR analytics:	500 MHz ($CDCl_3$)
characteristics:	- Fe^{2+} specific fluorescent "sensor"

Squarix GmbH - Elbestraße 10 - D-45768 Marl - Germany
fon: +49-2365-20400-0 - fax: +49-2365-20400-60 - www.squarix.de - e-mail: info@squarix.de

- Mitochondria specific

- Determination of the mitochondrial chelatable iron pool

- Assessment of: mitochondrial iron uptake

- Assessment of alterations of the mitochondrial chelatable iron pool under pathological conditions

- Assessment of the contribution of mitochondrial chelatable iron to physiological and pathological cellular processes

- Assessment of iron reduction

Safety Information

R-Sentence:	R: 36/37/38
S-Sentence:	S: 26-24/25
hazardous substance symbol:	Xn
safety info:	Caution, substance not fully tested. Potential health effects.

References

1. Selective determination of mitochondrial chelatable iron in viable cells with a new fluorescent sensor. F. Petrat et. al. Biochem. J. (2002) 362, 137-147

2. Cold-induced apoptosis of hepatocytes: mitochondrial permeability transition triggered by nonmitochondrial chelatable iron; U. Rauen et al. Free Radical Biology & Medicine, Vol. 35, No. 12, pp. 1664-1678, 2003

3. The chelatable iron pool in living cells: A methodically defined quantity. F. Petrat et. al. Biol. Chem., Vol. 383, pp. 489-502, 2002

4. Assessment of chelatable mitochondrial iron by using mitochondrion-selective fluorescent iron indicators with different iron-binding affinities. U. Rauen et al. ChemBioChem 2007, 8, 341-352

5. Oxidative inactivation of mitochondrial Aconitase results in iron and hydrogen peroxide-mediated neurotoxicity in rat primary mesencephalic cultures. David Cantu et. al. PlosOne, September 2009, Vol 4, Issue 9, p 1-9

Application Notes

The product is used as a selective, high quantum yield fluorescence marker for Fe^{2+} in biological samples, especially in mitochondria of viable cells. Measurements can be performed by fluorescence spectroscopy, fluorescence plate readers

Ordering Information

Cat. No.	Product Name	Quantity	Price
ME042.1	9[2({[4(2,2'-bipyridin-4-ylcarbamoyl)benzyl]-oxy}carbonyl)phenyl]6(diethylamino)N,N-diethyl-3H-xanthen-3-iminium bromide	1 mg	325,- €
ME042.2	9[2({[4(2,2'-bipyridin-4-ylcarbamoyl)benzyl]-oxy}carbonyl)phenyl]6(diethylamino)N,N-diethyl-3H-xanthen-3-iminium bromide	5 mg	975,- €