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Product Information

Fluorescent β-3 Adrenoceptor Partial Agonist (β3-633-AG)

Catalog Number **SML0163**
Storage Temperature –20 °C

Synonym: (S)-Carazolol-derivative

Product Description
Molecular formula: $C_{50}H_{55}BF_2N_6O_7S$
Molecular weight: 932.88

This fluorescent ligand may be used for imaging of $\beta_1/\beta_2/\beta_3$ adrenoceptors in cells. It has been validated as an antagonist at $\beta_1/\beta_2/\beta_3$ adrenoceptors, and as a partial agonist at β_3 adrenoceptors, as a very weak partial agonist at β_1, and as having no agonist activity at β_2.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

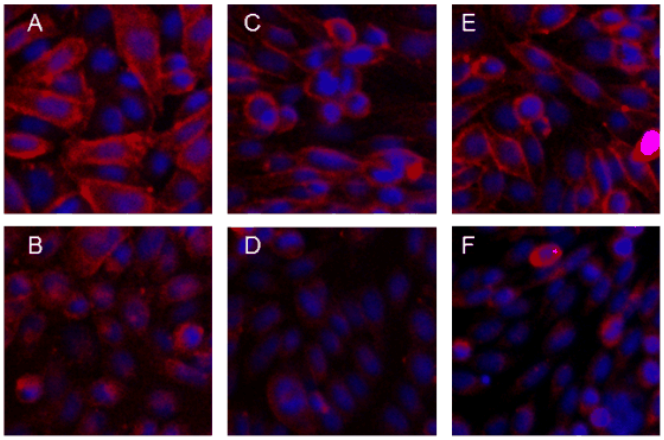
Preparation Instructions
Dissolve 0.2 mg of SML0163 in 21.4 µL of DMSO to give a 10 mM stock solution.

Once reconstituted into DMSO, aliquot the solution and store at –20 °C.

Storage/Stability
The product, as supplied, is stable at ambient temperature for periods of up to a few days and does not require shipping on ice/dry ice.
Once received, protect from light and store at –20 °C.

Procedure
For imaging $\beta_1/\beta_2/\beta_3$ adrenoceptors use ligand concentrations up to 100 nM. Excite the bound ligand using a 633 nm laser-line and use a 650 nm filter-set to observe fluorescent emission.

Results
Figure 1.
Adrenoceptor Binding and Displacement of β3-633-AG



A, C, and E (top) – The β3-633-AG ligand (100 nM) binding to 3 different live cell lines expressing β_1 (A), β_2 (C), and β_3 (E) adrenoceptors.

B, D, and F (bottom) – Binding of the β3-633-AG ligand blocked in the same 3 cell lines using the unlabeled competitor ICI118551 [1 µM, β_1 (A) and β_2 (C)] or SR59230A [1 µM, β_3 (E)].

Nuclei have been counterstained with Hoechst dye.

JB,PHC 07/12-1