Fluorescent Adenosine A3 Receptor Antagonist (A3-633-AN)

Catalog Number SML0157
Storage Temperature –20 °C

Synonyms: Xanthine Amine Congener (XAC)-derivative

Product Description
Molecular formula: C_{58}H_{68}BF_{2}N_{11}O_{9}S
Molecular weight: 1144.10

This fluorescent ligand (A3-633-AN) may be used for imaging of A1/A2A/A3 adenosine receptors in cells. It has been validated as an antagonist at A1/A2A/A3 adenosine receptors.

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 SML0157 in 17.5 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 A1/A2A/A3 adenosine receptors 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.
Adenosine receptor Binding and Displacement of A3-633-AN

Left – The A3-633-AN ligand (100 nM) binding to live CHO cells expressing A3 receptors.

Right – Binding of the A3-633-AN ligand blocked in the the unlabeled competitor XAC (10 µM).

Nuclei have been counterstained with Hoechst dye.

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