

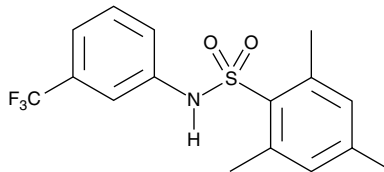
Product Information



m-3M3FBS

Item No. 16867

CAS Registry No.: 200933-14-8
Formal Name: 2,4,6-trimethyl-N-[3-(trifluoromethyl)phenyl]-benzenesulfonamide
MF: C₁₆H₁₆F₃NO₂S
FW: 343.4
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 230 nm



Laboratory Procedures

For long term storage, we suggest that *m*-3M3FBS be stored as supplied at -20°C. It should be stable for at least two years.

m-3M3FBS is supplied as a crystalline solid. A stock solution may be made by dissolving the *m*-3M3FBS in the solvent of choice. *m*-3M3FBS is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, (DMF) which should be purged with an inert gas. The solubility of *m*-3M3FBS in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

m-3M3FBS is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *m*-3M3FBS should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. *m*-3M3FBS has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

m-3M3FBS is an activator of phospholipase C (PLC) that stimulates superoxide generation, increase in cytoplasmic calcium, and inositol phosphate formation in human neutrophils when used at a concentration of 15-50 μM.¹ It stimulates cytoplasmic calcium increases in several cell lines and, at 25 μM *in vitro*, promotes the hydrolysis of phosphatidylinositol bisphosphate by all PLC isoforms.¹ *m*-3M3FBS is used to study PLC signaling in cells and animals, often in conjunction with the PLC inhibitor U-73122 (Item No. 70740).²⁻⁴

References

1. Bae, Y.-S., Lee, T.G., Park, J.C., *et al.* Identification of a compound that directly stimulates phospholipase C activity. *Mol. Pharmacol.* **63**(5), 1043-1050 (2003).
2. Kim, S.D., Kim, H.J., Shim, J.W., *et al.* Phospholipase C activator *m*-3M3FBS protects against morbidity and mortality associated with sepsis. *J. Immunol.* **189**(4), 2000-2005 (2012).
3. Semple-Rowland, S., Madorsky, I., Bolch, S., *et al.* Activation of phospholipase C mimics the phase shifting effects of light on melatonin rhythms in retinal photoreceptors. *PLoS One* **8**(12), 1-7 (2013).
4. Szebenyi, S.A., Ogura, T., Sathyanesan, A., *et al.* Increases in intracellular calcium via activation of potentially multiple phospholipase C isozymes in mouse olfactory neurons. *Front. Cell. Neurosci.* **8**, 1-14 (2014).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16867

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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