

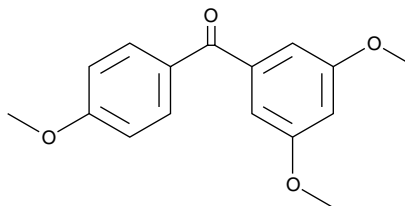
# Product Information



## 3,4',5'-Trimethoxybenzophenone

Item No. 10004185

**CAS Registry No.:** 94709-12-3  
**Formal Name:** (3,5-dimethoxyphenyl)(4-methoxyphenyl)-methanone  
**MF:** C<sub>16</sub>H<sub>16</sub>O<sub>4</sub>  
**FW:** 272.3  
**Purity:** ≥95%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 222, 290 nm



### Laboratory Procedures

For long term storage, we suggest that 3,4',5'-trimethoxybenzophenone be stored as supplied at -20°C. It should be stable for at least one year.

3,4',5'-Trimethoxybenzophenone is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,4',5'-trimethoxybenzophenone in an organic solvent purged with an inert gas. 3,4',5'-Trimethoxybenzophenone is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 3,4',5'-trimethoxybenzophenone in these solvents is at least 20 mg/ml.

3,4',5'-Trimethoxybenzophenone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3,4',5'-trimethoxybenzophenone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 3,4',5'-Trimethoxybenzophenone has a solubility of 0.1 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Resveratrol is a potent phenolic antioxidant found in natural sources that has antiproliferative activity.<sup>1</sup> When the three phenolic hydroxyl groups of resveratrol are converted to methyl ethers, the inhibition of cell growth is enhanced.<sup>2</sup> 3,4',5'-Trimethoxybenzophenone is an analog of trimethoxy resveratrol. It inhibits the growth of a variety of human tumor cell lines at concentrations from 0.4 to 2 µg/ml, which is 5-6 times more potent than resveratrol.<sup>3</sup>

### References

1. Rotondo, S., Rajtar, G., Manarini, S., *et al.* Effect of *trans*-resveratrol, a natural polyphenolic compound, on human polymorphonuclear leukocyte function. *Br. J. Pharmacol.* **123**, 1691-1699 (1998).
2. Nam, K.A., Kim, S., Heo, Y.H., *et al.* Resveratrol analog, 3,5,2',4'-tetramethoxy-*trans*-stilbene, potentiates the inhibition of cell growth and induces apoptosis in human cancer cells. *Arch. Pharm. Res.* **24(5)**, 441-445 (2001).
3. Pettit, G.R., Grealish, M.P., Jung, M.K., *et al.* Antineoplastic agents. 465. Structural modification of resveratrol: Sodium resverastatin phosphate. *J. Med. Chem.* **45**, 2534-2542 (2002).

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For a list of related products please visit: [www.caymanchem.com/catalog/10004185](http://www.caymanchem.com/catalog/10004185)

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**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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