Product Name: meso-Tetra(4-carboxyphenyl)porphine

Catalog Number: T790

Sizes Available: 250 mg, 500 mg, 1 g, 5 g, 10 g and larger sizes available

Molecular weight: 790.8 g/mol

Molecular Formula: C₄₈H₃₀N₄O₈

CAS Number: 14609-54-2

Storage: Store at room temperature and protect from light.

Synonyms:
14609-54-2, meso-Tetra(4-carboxyphenyl)porphine, TCPP, 4,4,4,4-(Porphine-5,10,15,20-tetrayl)tetrakis(benzoic acid), Tetrakis(4-carboxyphenyl)porphyrin, Tetracarboxyphenylporphine, MFCD00064860, Tetrakis(4-carboxyphenyl) porphyrin, UNII-E9892W6IMC, CHEMBL374342, E9892W6IMC, 4-[10,15,20-tris(4-carboxyphenyl)-21,23-dihydroporphyrin-5-yl]benzoic acid, 4,4',4'',4'''-(Porphine-5,10,15,20-tetrayl)tetrakis(benzoic acid), 5,10,15,20-Tetrakis(4-carboxyphenyl)-21H,23H-porphine, MTCPP, YSZC167, SCHEML709532, tetra(4-carboxyphenyl)porphine, CCRIS 8701, HSDB 8470
Field of Interest: Metal-Organic-Frameworks MOF’S, Photodynamic Therapy, Self-Assembly, Solar Cells,

Background: meso-Tetra(4-carboxyphenyl)porphine, TCPP is a synthetic porphyrin bearing four carboxy groups which make this compound extremely useful for the construction of metal-organic-frameworks\(^1,2\). TCPP was used to synthesize a porphyrinic zirconium-based MOF that could be used as a fluorescence sensor for Cd(II) and Br-ions\(^3\). TCPP was used as a light-addressable potentiometric sensor for DNA methylation\(^4\). TCPP was found to bind to CD320, the cellular receptor for cobalamin/transcobalamin II in cancer cells\(^5\). TCPP was used to produce a porphyrin supramolecular array along with meso-tetrakis(4-dimethylamino)porphine on a Au(111) surface\(^6\). TCPP has been used as a photosensitizer on nanoparticulate TiO\(_2\) for solar energy conversion\(^7\).

References:


Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request meso-Tetra(4-carboxyphenyl)porphine

is manufactured, shipped according to standard practices, and intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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