



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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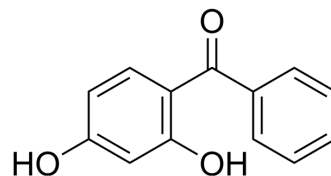
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## 2,4'-Dihydroxybenzophenone

<b>Cat. No.:</b>	HY-W014223		
<b>CAS No.:</b>	131-56-6		
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>10</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	214.22		
<b>Target:</b>	Toll-like Receptor (TLR); Reactive Oxygen Species; MyD88; IRAK; NF-κB		
<b>Pathway:</b>	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 200 mg/mL (933.62 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	4.6681 mL	23.3405 mL	46.6810 mL
		5 mM	0.9336 mL	4.6681 mL	9.3362 mL
10 mM		0.4668 mL	2.3340 mL	4.6681 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 5 mg/mL (23.34 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	2,4'-Dihydroxybenzophenone (Ultraviolet absorber UV-0) occupies the hydrophobic pocket of MD2 and blocks the dimerization of TLR4. 2,4'-Dihydroxybenzophenone inhibits the LPS induced mtROS production, and LPS induced inflammatory response by downregulating pro-inflammatory mediators and decreasing the expression of MyD88, p-IRAK4, and NF-κB. 2,4'-Dihydroxybenzophenone is also a UV absorber <sup>[1][2]</sup> .
<b>In Vivo</b>	2,4'-Dihydroxybenzophenone (6.25-25 μM) reduces mortality and morphological abnormalities, restores heart rate, and mitigates macrophage and neutrophil recruitment to inflammatory sites in LPS-microinjected zebrafish larvae <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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- [1]. Kavinda MHD, et al. 2,4'-Dihydroxybenzophenone: A Promising Anti-Inflammatory Agent Targeting Toll-like Receptor 4/Myeloid Differentiation Factor 2-Mediated Mitochondrial Reactive Oxygen Species Production during Lipopolysaccharide-Induced Systemic Inflammation. ACS Pharmacol Transl Sci. 2024 Apr 27;7(5):1320-1334.
- [2]. Fang Z, et al. Effect of Substituent Groups on the Strength of Intramolecular Hydrogen Bonds in 2,4-Dihydroxybenzophenone UV Absorbers. Molecules. 2023 Jun 27;28(13):5017.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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