

Product Name: CORM 3

Catalog No.: 5320

Batch No.: 1

CAS Number: 475473-26-8

IUPAC Name: Tricarbonylchloro(glycinato)ruthenium

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅H₄ClNO₅Ru.1 ¼H₂O

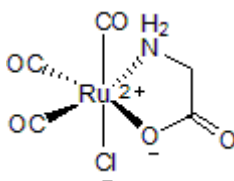
Batch Molecular Weight: 317.13

Physical Appearance: Yellow solid

Solubility: water to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	18.94	2.07	4.42
Found	18.65	1.73	4.49

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Water-soluble carbon monoxide-releasing molecule. Suppresses thrombin-induced nitrite release in BV-2 microglia. Protects isolated rats hearts from reperfusion damage in vitro and is cardioprotective in a rat myocardial infarction model in vivo. Also prolongs survival of transplanted hearts in mice. Exhibits anti-inflammatory and vasorelaxant effects.

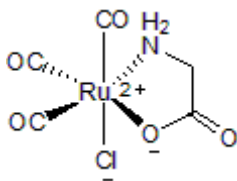
Physical and Chemical Properties:

Batch Molecular Formula: C₅H₄ClNO₅Ru.1½H₂O

Batch Molecular Weight: 317.13

Physical Appearance: Yellow solid

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Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Clark et al (2003) Cardioprotective actions by a water-soluble carbon monoxide-releasing molecule. *Circ.Res.* **93** e2. PMID: 12842916.

Foresti et al (2004) Vasoactive properties of CORM-3, a novel water-soluble carbon monoxide-releasing molecule. *Br.J.Pharmacol.* **142** 453. PMID: 15148243.

Sawle et al (2005) Carbon monoxide-releasing molecules (CO-RMs) attenuate the inflammatory response elicited by lipopolysaccharide in RAW264.7 murine macrophages. *Br.J.Pharmacol.* **145** 800. PMID: 15880142.

Bani-Hani et al (2006) Modulation of thrombin-induced neuroinflammation in BV-2 microglia by carbon monoxide-releasing molecule 3. *J.Pharmacol.Exp.Ther.* **318** 1315. PMID: 16772536.

Filippo et al (2012) Acute myocardial infarction in streptozotocin-induced hyperglycaemic rats: protection by a carbon monoxide-releasing molecule (CORM-3). *Naunyn Schmiedebergs Arch.Pharmacol.* **385** 137. PMID: 22038495 .

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