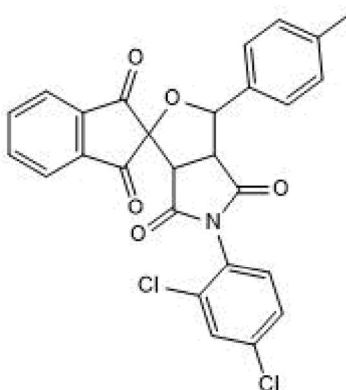


Product Name: ML T7 **Catalog No.:** 8119 **Batch No.:** 1
CAS Number: 459789-75-4
IUPAC Name: 5-(2,4-Dichlorophenyl)-3a,6a-dihydro-3-(4-methylphenyl)spiro[1*H*-furo[3,4-*c*]pyrrole-1,2'-[2*H*]indene]-1',3',4,6(3*H*,5*H*)-tetrone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₁₇Cl₂NO₅.
Batch Molecular Weight: 506.34
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.05	3.38	2.77
Found	63.59	3.4	2.78

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

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CAS Number:	459789-75-4			
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Description:

ML T7 is a T cell immunoglobulin and mucin-containing molecule 3 (Tim-3) inhibitor; disrupts phosphatidylserine/CAECAM1 binding to Tim-3 ($K_d = 7.0 \mu\text{M}$ and $7.4 \mu\text{M}$ for hTim-3 and mTim-3 respectively). ML T7 promotes cell proliferation, cytokine production and cytotoxicity of OT-I CD8⁺ cytotoxic T lymphocytes. ML T7 inhibits tumor growth in a syngeneic mouse model of hepatocellular carcinoma, increases NK cell tumor killing activity and DC maturation.

Physical and Chemical Properties:

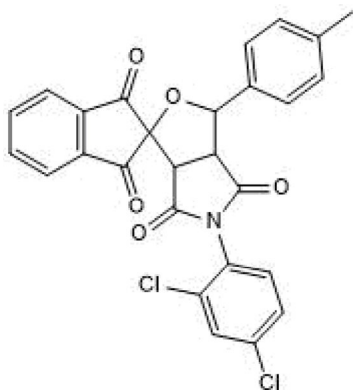
Batch Molecular Formula: $\text{C}_{27}\text{H}_{17}\text{Cl}_2\text{NO}_5$.

Batch Molecular Weight: 506.34

Physical Appearance: Off White solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO 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 $45\text{-}60^\circ\text{C}$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Ma *et al* (2023) Identification of a small-molecule Tim-3 inhibitor to potentiate T cell-mediated antitumor immunotherapy in preclinical mouse models. *Sci.Transl.Med.* **15**. PMID: 37967204.

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