

# **Data Sheet**

 Product Name:
 LR-90

 Cat. No.:
 CS-M0920

 CAS No.:
 245075-84-7

 Molecular Formula:
 C<sub>35</sub>H<sub>34</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>8</sub>

Molecular Weight: 709.57
Target: COX

Pathway:Immunology/InflammationSolubility:DMSO : ≥ 100 mg/mL

#### **BIOLOGICAL ACTIVITY:**

LR-90 is an **advanced glycation end product (AGE)** inhibitor, inhibits inflammatory responses in human monocytes<sup>[1]</sup>. LR-90 is also used in the research of diabetic animal model<sup>[2]</sup>. IC50 & Target: AGE<sup>[1]</sup> *In Vitro:* LR-90 (0, 25, 50, 100, and 200  $\mu$ M) inhibits RAGE, MCP-1, COX-2, IP-10 and NOX2 mRNA expression in THP-1 cells in a dose-dependent manner, after pretreatment 1 h befor S100b stimulatation for 4 hours<sup>[1]</sup>.

LR-90 (0, 25, 50, 100, and 200  $\mu$ M) dose-dependently and significantly blocks THP-1 cells adherence to endothelial cells after pretreatment 1 h befor S100b stimulatation for 24 hours<sup>[1]</sup>.

LR-90 (0, 25, 50, 100, and 200  $\mu$ M, for 24 hours) shows no effect on the cell viability of THP-1 cells<sup>[1]</sup>. *In Vivo:* LR-90 (50 mg/L, p.o. for 27 weeks) significantly reduces plasma lipids, modestly affects hyperglycaemia in ZDF rats<sup>[2]</sup>.

LR-90 (50 mg/L) decreases renal AGE, AGER and lipid peroxidation<sup>[2]</sup>.

### References:

[1]. Figarola JL, et al. Anti-inflammatory effects of the advanced glycation end product inhibitor LR-90 in human monocytes. Diabetes. 2007 Mar;56(3):647-55.

[2]. Figarola JL, et al. LR-90 prevents dyslipidaemia and diabetic nephropathy in the Zucker diabetic fatty rat. Diabetologia. 2008 May;51(5):882-91.

## **CAIndexNames:**

 $Propanoic\ acid,\ 2,2'-[methylenebis[(2-chloro-4,1-phenylene)iminocarbonylimino-4,1-phenyleneoxy]] bis[2-methylenebis[(2-chloro-4,1-phenylene)iminocarbonylimino-4,1-phenyleneoxy]] bis[2-methyleneoxy]] bis[$ 

#### **SMILES:**

O = C(NC1 = CC = C(C = C1)OC(C)(C)(C)(C)(O) = O)NC(C(C1) = C2) = CC = C2CC3 = CC = C(C(C1) = C3)NC(NC4 = CC = C(C = C4)OC(C)(C)(C)(C) = O) = O(C1) = CC = CC1 =

Caution: Product has not been fully validated for medical applications. For research use only.

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