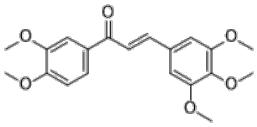
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Data Sheet

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Product Name	:	MD2-IN-1
Cat. No.	:	PC-28586
CAS No.	:	111797-22-9
Molecular Formula	:	$C_{20}H_{22}O_6$
Molecular Weight	:	358.39
Target	:	Toll-like Receptor (TLR)
Solubility	:	10 mM in DMSO



Biological Activity

MD2-IN-1 (Compound 20) is a selective small molecule inhibitor of Myeloid differentiation 2 (MD2) with anti-inflammatory properties, inhibits TLR4/MD2 complex, dose-dependent inhibits LPS-induced TNF-α and IL-6 release with IC50 of 4.27 and 2.06 uM in MPMs.
MD2-IN-1 exhibits recognizable binding to rhMD2 protein in a dose-dependent manner, with a KD value of 189 uM.
MD2-IN-1 inhibits the LPS-induced overexpression of TNF-α and IL-6 in mouse peritoneal macrophages (MPMs).
MD2-IN-1 has no binding affinity to rhTLR4 protein, does not affect the MD2-independent TLR2 pro-inflammatory pathway.
MD2-IN-1 inhibits LPS-induced activation of NF-κB and MAPKs, and expression of inflammatory genes in MPMs.
MD2-IN-1 reduced LPS-induced pulmonary edema in rats, decreases LPS-induced MPO activity in the lung tissue.

References

Yali Zhang, et al. Sci Rep. 2016 Apr 27:6:25130.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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