

Product Data Sheet

Inhibitors

Screening Libraries

Proteins

Lipoxin A4-d₅

Cat. No.: HY-113509S CAS No.: 1622429-53-1 Molecular Formula: $C_{20}H_{27}D_{5}O_{5}$

Molecular Weight: 357.5

Target: Interleukin Related; Endogenous Metabolite

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Lipoxin A4- d_5 is the deuterium labeled Lipoxin A4. Lipoxin A4 (LXA4), an endogenous lipoxygenase-derived eicosanoid mediator, has potent dual pro-resolving and anti-inflammatory properties[1]. Lipoxin A4 inhibits proliferation and inflammatory cytokine/chemokine production of human epidermal keratinocytes (NHEKs) associated with the ERK1/2 and NF-kB pathways[2]. Lipoxin A4 inhibits serum amyloid A (SAA)-mediated IL-8 release with an IC50 value of 25.74 nM[3].
IC ₅₀ & Target	IL-8
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Feng Hu, et al. Lipoxin A4 inhibits proliferation and inflammatory cytokine/chemokine production of human epidermal keratinocytes associated with the ERK1/2 and NF-kB pathways. J Dermatol Sci. 2015 Jun;78(3):181-8.

[3]. Steven Bozinovski, et al. Serum amyloid A opposes lipoxin A4 to mediate glucocorticoid refractory lung inflammation in chronic obstructive pulmonary disease. Proc Natl Acad Sci U S A. 2012 Jan 17;109(3):935-40.

[4]. Xinxin Liu, et al. Lipoxin A4 and its analog suppress inflammation by modulating HMGB1 translocation and expression in psoriasis. Sci Rep. 2017 Aug 2;7(1):7100.

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

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