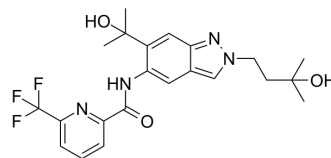


IRAK4-IN-20

Cat. No.:	HY-150735
CAS No.:	1931994-80-7
Molecular Formula:	C ₂₂ H ₂₅ F ₃ N ₄ O ₃
Molecular Weight:	450.45
Target:	IRAK
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	IRAK4-IN-20 (Compound BAY-1834845) is an orally active IRAK4 inhibitor with an IC ₅₀ of 3.55 nM. IRAK4-IN-20 can be used for acute respiratory distress syndrome (ARDS) research ^[1] .	
IC₅₀ & Target	IRAK4 3.55 nM (IC ₅₀)	
In Vitro	IRAK4-IN-20 (Compound BAY-1834845) (500 nM, 20 h) decreases inflammatory cytokines secretion effectively in an in vitro treatment of LPS stimulated human peripheral blood mononuclear cells (PBMC) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	IRAK4-IN-20 (Compound BAY-1834845) (150 mg/kg; p.o.; once or twice) effectively prevents acute respiratory distress syndrome in mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female Balb/c mice (aged 6–7 weeks), LPS-induced ARDS mouse model ^[1]
	Dosage:	150 mg/kg
	Administration:	Oral administration, 30 min before LPS modeling or twice 4 h and 12 h after LPS modeling
	Result:	Remarkably decreased inflammatory cells infiltrating lung tissue and neutrophil count in BALF. Effectively reduced the numbers of total T cells, monocyte, and macrophages. Largely preserved the signatures of naïve lymphocytes and stromal cells such as endothelial cells, chondrocytes, and smooth muscle cells. Regulated inflammation and innate immunity genes more efficiently than Dexamethasone (HY-14648).

REFERENCES

[1]. Li Q, et al. Oral IRAK4 Inhibitor BAY-1834845 Prevents Acute Respiratory Distress Syndrome. Biomedicine & Pharmacotherapy, 2022: 113459.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA