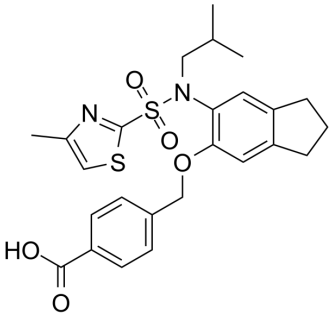
ONO-8130

Cat. No.:	HY-110198
CAS No.:	459841-96-4
Molecular Formula:	$C_{25}H_{28}N_2O_5S_2$
Molecular Weight:	500.63
Target:	Prostaglandin Receptor; PERK
Pathway:	GPCR/G Protein; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	ONO-8130 is an orally active and selective prostanoid EP1 receptor antagonist. ONO-8130 blocks phosphorylation of ERK in the L6 spinal cord. ONO-8130 relieves bladder pain in mice with cyclophosphamide-induced cystitis. ONO-8130 can be used for interstitial cystitis research[1].
IC_{50} & Target	EP_1 Receptor

In Vivo

ONO-8130 (0.3-30 mg/kg; Oral preadministration, once) strongly prevents both the bladder pain-like behavior and referred hyperalgesia in a dose-dependent manner[1].

ONO-8130 (30 mg/kg; Orally, once) reverses the established cystitis-related bladder pain[1].

ONO-8130 (30 mg/kg; Orally, once) strongly inhibits phosphorylation of ERK in MDH, DCM, and SPN of the L6 spinal cord caused by intravesical administration of PGE2[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female ddY mice (18-22 g, 4-5 weeks old)[1]
Dosage:	0.3, 3, 10, and 30 mg/kg
Administration:	Orally, once
Result:	Strongly prevented both the bladder pain-like behavior and referred hyperalgesia in a dose-dependent manner, but had slight effect on the increased bladder weight and vascular permeability.

Animal Model:	Female ddY mice (18-22 g, 4-5 weeks old, established bladder pain caused by IP cyclophosphamide)[1]
Dosage:	10, 30 mg/kg
Administration:	Orally, once (administered 2.75 hours after i.p. cyclophosphamide)
Result:	Markedly attenuated the bladder pain-like nociceptive behavior and referred hyperalgesia in the acute phase (3.5-4 h after cyclophosphamide).

Animal Model:	Female ddY mice (18-22 g, 4-5 weeks old, established bladder pain caused by IP cyclophosphamide)[1]
Dosage:	30 mg/kg
Administration:	Orally, once (administered 4.75 hours after i.p. cyclophosphamide)
Result:	Significantly suppressed the bladder pain-like nociceptive behavior and tended to reduce the referred hyperalgesia in the persistent phase, 5.5-6 hours after cyclophosphamide.

Animal Model:	Female ddY mice (18-22 g, 4-5 weeks old, intravesical administration of PGE2 at 5 nmol/mouse)[1]
Dosage:	30 mg/kg
Administration:	Orally, once
Result:	Strongly inhibited phosphorylation of ERK in MDH, DCM, and SPN of the L6 spinal cord caused by intravesical administration of PGE2 at 5 nmol/mouse, exerted complete blockade in DCM, while its inhibitory effects in MDH and SPN were partial.

REFERENCES

[1]. Miki T, et al. ONO-8130, a selective prostanoid EP1 receptor antagonist, relieves bladder pain in mice with cyclophosphamide-induced cystitis. Pain. 2011 Jun;152(6):1373-1381.

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