Alosetron ((Z)-2-butenedioate)

Cat. No.: HY-70050B

CAS No.: 122852-43-1

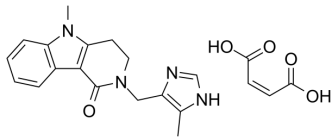
Molecular Formula: $C_{21}H_{22}N_4O_5$

Molecular Weight: 410.42

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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



BIOLOGICAL ACTIVITY

Description	Alosetron (GR 68755) (Z)-2-butenedioate is a potent and highly selective serotonin 5-HT3 receptor antagonist. Alosetron (Z)-2-butenedioate is used for the research of irritable bowel syndrome (IBS). Alosetron (Z)-2-butenedioate blocks the fast 5HT3-mediated depolarisation of guinea-pig myenteric and submucosal neurons, with IC_{50} at ~55 nM. Alosetron (Z)-2-butenedioate attenuates the visceral nociceptive effect of rectal distension in conscious or anaesthetised dogs. Anti-inflammatory effects[1][2].
IC_{50} & Target	5-HT_3 Receptor
In Vivo	Dexamethasone and Alosetron-treated (1 mg/kg; ip; daily for 6 days) rats exhibits a significant decrease in the diarrhea index, in comparison with TNBS-control group, especially after the initial 2 days of treatment following the induction of colitis[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bleser S.Alosetron for severe diarrhea-predominant irritable bowel syndrome: improving patient outcomes.Curr Med Res Opin. 2011 Mar;27(3):503-12.

[2]. Lucak SL.Optimizing outcomes with alosetron hydrochloride in severe diarrhea-predominant irritable bowel syndrome.Therap Adv Gastroenterol. 2010 May;3(3):165-72.

[3]. Lewis JH.Alosetron for severe diarrhea-predominant irritable bowel syndrome: safety and efficacy in perspective.Expert Rev Gastroenterol Hepatol. 2010 Feb;4(1):13-29.

[4]. Painsipp E, Shahbazian A, Holzer P.Alosetron, cilansetron and tegaserod modify mesenteric but not colonic blood flow in rats.Br J Pharmacol. 2009 Nov;158(5):1210-26.

[5]. Targeting the 5-HT3 receptor in the treatment of irritable bowel syndrome By Spiller, Robin C.From Current Opinion in Pharmacology (2011), 11(1), 68-74.

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

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