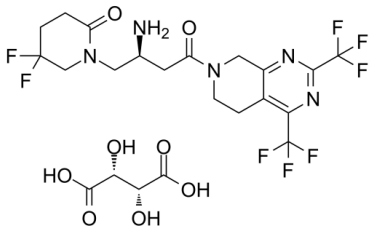
Data Sheet

Product Name:	Gemigliptin (tartrate)
Cat. No.:	CS-0041582
CAS No.:	1374639-74-3
Molecular Formula:	$C_{22}H_{25}F_8N_5O_8$
Molecular Weight:	639.45
Target:	Dipeptidyl Peptidase
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : 100 mg/mL (156.38 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Gemigliptin tartrate (LC15-0444 tartrate) is a highly selective, reversible and competitive dipeptidyl peptidase-4 (**DPP-4**) inhibitor, with an **IC_{50}** of 10.3 nM for human recombinant DPP-4. Gemigliptin tartrate exhibits potent anti-glycation properties. Gemigliptin tartrate can be used for the research of advanced glycation end products (AGE)-related diabetic complications[1][2]. IC50 & Target: IC50: 10.3 nM (human recombinant DPP-4)[2] **In Vitro:** Gemigliptin tartrate dose-dependently inhibits the formation of AGE-BSA with IC_{50} of 11.69 mM[1].

Gemigliptin tartrate dose-dependently suppresses the cross-linking of preformed AGE-BSA with rat tail tendon collagen with an IC_{50} of 1.39 mM[1].

Gemigliptin tartrate is a competitive DPP-4 inhibitor with a K_i of 7.25 nM[2].

In Vivo: Gemigliptin tartrate (100 mg/kg; i.g.; daily; for 12 weeks) inhibits AGEs formation and AGE cross-links in vivo[1].

Gemigliptin tartrate dose-dependently inhibits plasma DPP-4 activity in rats, dogs, and monkeys[2].

References:

[1]. Jung E, et al. Gemigliptin, a novel dipeptidyl peptidase-4 inhibitor, exhibits potent anti-glycation properties in vitro and in vivo. Eur J Pharmacol. 2014 Dec 5;744:98-102.

[2]. Kim SH, et al. Pharmacological profiles of gemigliptin (LC15-0444), a novel dipeptidyl peptidase-4 inhibitor, in vitro and in vivo. Eur J Pharmacol. 2016 Oct 5;788:54-64.

CAIndexNames:

2-Piperidinone, 1-[(2S)-2-amino-4-[5,8-dihydro-2,4-bis(trifluoromethyl)pyrido[3,4-d]pyrimidin-7(6H)-yl]-4-oxobutyl]-5,5-difluoro-, (2R,3R)-2,3-dihydroxybutanedioate (1:?)

SMILES:

O=C(O)[C@H](O)[C@@H](O)C(O)=O.O=C1N(C[C@@H](N)CC(N2CCC3=C(C(F)(F)F)N=C(C(F)(F)F)N=C3C2)=O)CC(F)(F)CC1

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

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA