

Ractopamine-D5 hydrochloride

Chemical Properties

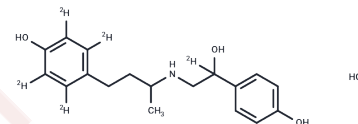
CAS No. :

Formula: C₁₈H₁₉D₅ClNO₃

Molecular Weight: 342.87

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ractopamine-D5 hydrochloride is the deuterated analog of Ractopamine Hydrochloride (TMSM-2017). Ractopamine hydrochloride is a potent β -adrenergic receptor (β AR) agonist with high affinity for porcine β 1AR and β 2AR, with a K _d value of approximately 25 nM; it can be used in studies to promote lean meat growth and improve breeding efficiency in pigs by regulating protein metabolism.
Targets(IC50)	Adrenergic Receptor

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9166 mL	14.5828 mL	29.1656 mL
5 mM	0.5833 mL	2.9166 mL	5.8331 mL
10 mM	0.2917 mL	1.4583 mL	2.9166 mL
50 mM	0.0583 mL	0.2917 mL	0.5833 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- Athayde NB, et al. Stress susceptibility in pigs supplemented with ractopamine. *J Anim Sci.* 2013;91(9):4180-4187.
- Anderson PT, et al. Ractopamine increases total and myofibrillar protein synthesis in cultured rat myotubes. *J Nutr.* 1990;120(12):1677-1683.
- S. E. Mills, Biological basis of the ractopamine response, *Journal of Animal Science*, Volume 80, Issue E-suppl_2, 2002, Pages E28-E32.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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