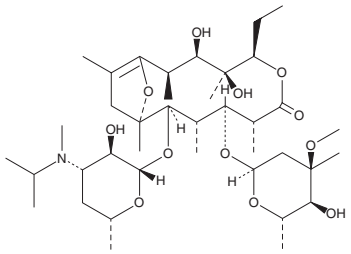
PRODUCT INFORMATION

EM574

Item No. 27752

CAS Registry No.:	110480-13-2
Formal Name:	8,9-didehydro-N-demethyl-9-deoxo-6-deoxy-6,9-epoxy-N-(1-methylethyl)-erythromycin
MF:	$C_{39}H_{69}NO_{12}$
FW:	744.0
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

EM574 is supplied as a solid. A stock solution may be made by dissolving the EM574 in the solvent of choice, which should be purged with an inert gas. EM574 is soluble in ethanol, methanol, and DMSO.

Description

EM574 is a motilin receptor agonist with an IC_{50} value of 6.17 nM for binding to rabbit gastric antral smooth muscle homogenates in a radioligand binding assay.[1] It also binds to human smooth muscle homogenates in a radioligand binding assay (K_d = 7.8 nM).[2] EM574 induces contraction of isolated rabbit, but not rat or guinea pig, intestine (EC_{50} = 5.5 nM).[1] It increases antral motility and enhances gastric emptying in canine models of gastroparesis when administered intraduodenally at a dose of 0.03 mg/kg following a semi-solid meal.[3]

References

1. Sato, F., Sekiguchi, M., Marui, S., *et al.* EM574, an erythromycin derivative, is a motilin receptor agonist in the rabbit. *Eur. J. Pharmacol.* **322(1),** 63-71 (1997).
2. Satoh, M., Sakai, T., Fujikura, K., *et al.* EM574, an erythromycin derivative, is a potent motilin receptor agonist in human gastric antrum. *J. Pharmacol. Exp. Ther.* **271(1),** 574-579 (1994).
3. Sato, F., Marui, S., Inatomi, N., *et al.* EM574, an erythromycin derivative, improves delayed gastric emptying of semi-solid meals in conscious dogs. *Eur. J. Pharmacol.* **395(2),** 165-172 (2000).

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