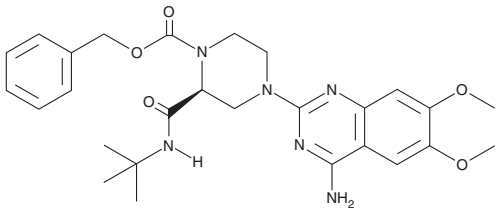
PRODUCT INFORMATION

L-765,314

Item No. 46903

CAS Registry No.: 189349-50-6
Formal Name: 4-(4-amino-6,7-dimethoxy-2-quinazolinyl)-2-[[(1,1-dimethylethyl) amino]carbonyl]-1-piperazinecarboxylic acid, phenylmethyl ester
Synonym: A-322312
MF: $C_{27}H_{34}N_6O_5$
FW: 522.6
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

L-765,314 is supplied as a solid. A stock solution may be made by dissolving the L-765,314 in the solvent of choice, which should be purged with an inert gas. L-765,314 is sparingly soluble (1-10 mg/ml) in ethanol.

Description

L-765,314 is an antagonist of the α_{1B}-adrenergic receptor (α_{1B}-AR; K_i = 2 nM for the cloned human receptor).[1] It selectively binds to human aorta, which endogenously expresses the α_{1B}-AR, over human prostate, which endogenously expresses the α_{1A}-AR, in radioligand tissue binding assays (K_is = 8.8 and 590 nM, respectively). L-765,314 (10 µM) decreases melanin production in B16/F10 melanoma cells and Mel-Ab melanocytes.[2] It reverses phenylephrine-induced decreases in carotid arteriovenous anastomotic (AVA) conductance in anesthetized pigs.[3] L-765,314 (1 mg/kg) inhibits imipramine-induced decreases in immobility time in the tail suspension test in mice.[4]

References

1. Patane, M.A., Scott, A.L., Broten, T.P., *et al.* 4-Amino-2-[4-[1-(benzyloxycarbonyl)-2(S)-[[(1,1-dimethylethyl) amino]carbonyl]-piperazinyl]-6, 7-dimethoxyquinazoline (L-765,314): A potent and selective α_{1b} adrenergic receptor antagonist. *J. Med. Chem.* **41(8)**, 1205-1208 (1998).
2. Kim, J., Kim, Y.-H., Bang, S., *et al.* L-765,314 suppresses melanin synthesis by regulating tyrosinase activity. *Molecules* **24(4)**, 773 (2019).
3. Willems, E.W., Heiligers, J.P., De Vries, P., *et al.* α_1-adrenoceptor subtypes mediating vasoconstriction in the carotid circulation of anaesthetized pigs: Possible avenues for antimigraine drug development. *Cephalalgia* **21(2)**, 110-119 (2001).
4. Ribeiro, C.A., and Pupo, A.S. Involvement of α_{1B}-adrenoceptors in the anti-immobility effect of imipramine in the tail suspension test. *Eur. J. Pharmacol.* **750**, 39-42 (2015).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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