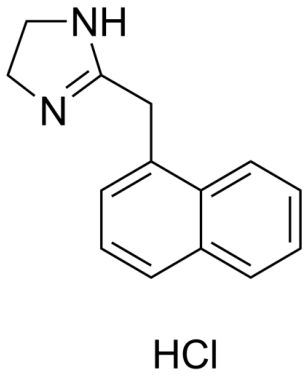
Data Sheet

Product Name:	Naphazoline (hydrochloride)
Cat. No.:	CS-2555
CAS No.:	550-99-2
Molecular Formula:	$C_{14}H_{15}ClN_2$
Molecular Weight:	246.74
Target:	Adrenergic Receptor; Interleukin Related; TNF Receptor; VEGFR
Pathway:	Apoptosis; GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Protein Tyrosine Kinase/RTK
Solubility:	DMSO : ≥ 25 mg/mL;H_2O : 50 mg/mL (ultrasonic)



BIOLOGICAL ACTIVITY:

Naphazoline (Naphthazoline) hydrochloride is a potent **α-adrenergic receptor** agonist. Naphazoline hydrochloride reduces vascular hyperpermeability and promotes vasoconstriction. Naphazoline hydrochloride reduces the levels of inflammatory factors (TNF-α, IL-1 β and IL-6), cytokines (IFN-γ and IL-4), IgE, GMCSF, and NGF. Naphazoline hydrochloride can be used for non-bacterial conjunctivitis research[1][2]. ***In Vivo:*** Naphazoline hydrochloride (0.2 mg/kg, 10 μl per eye; IP, once) reduces histamine or antigen-induced conjunctival vascular hyperpermeability in mice, and reduces conjunctivitis in mice via effects on inflammation, NGF and VEGF[1].

References:

[1]. Quan L, et, al. Treatment with olopatadine and naphazoline hydrochloride reduces allergic conjunctivitis in mice through alterations in inflammation, NGF and VEGF. Mol Med Rep. 2016 Apr;13(4):3319-25.

[2]. Yamaguchi I, et, al. Central and peripheral adrenergic mechanisms regulating gastric secretion in the rat. J Pharmacol Exp Ther. 1977 Oct;203(1):125-31.

CAIndexNames:

1H-Imidazole, 4,5-dihydro-2-(1-naphthalenylmethyl)-, hydrochloride (1:1)

SMILES:

C1(CC2=NCCN2)=CC=CC3=CC=CC=C13.Cl

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