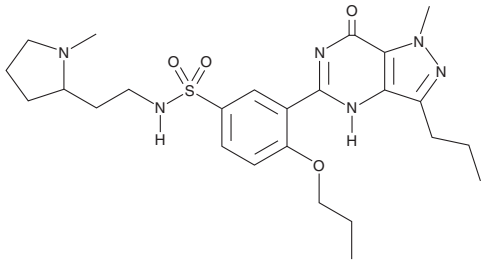
PRODUCT INFORMATION

Udenafil

Item No. 30373

CAS Registry No.:	268203-93-6
Formal Name:	3-(6,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-N-[2-(1-methyl-2-pyrrolidinyl)ethyl]-4-propoxy-benzenesulfonamide
Synonym:	DA-8159
MF:	$C_{25}H_{36}N_6O_4S$
FW:	516.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 285 nm
Supplied as:	A crystalline 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

Udenafil is supplied as a crystalline solid. A stock solution may be made by dissolving the udenafil in the solvent of choice, which should be purged with an inert gas. Udenafil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of udenafil in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Udenafil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, udenafil should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Udenafil has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Udenafil is an inhibitor of phosphodiesterase 5 (PDE5).[1-3] *In vivo*, udenafil (1 and 5 mg/kg) increases lung cGMP levels, attenuates the development of compensatory right ventricular hypertrophy, and reduces pulmonary arterial wall thickening in a rat model of monocrotaline-induced pulmonary hypertension.[1] It increases creatine clearance and decreases blood urea nitrogen (BUN) and serum malondialdehyde (MDA) levels in a rat model of renal ischemia-reperfusion injury.[2] Udenafil (0.3 and 10 mg/kg) induces penile erections in conscious rabbits and in rabbits with acute spinal cord injury.[3]

References

1. Kang, K.K., Ahn, G.J., Sohn, Y.S., *et al.* DA-8159, a new PDE5 inhibitor, attenuates the development of compensatory right ventricular hypertrophy in a rat model of pulmonary hypertension. *J. Int. Med. Res.* **31(6)**, 517-528 (2003).
2. Özlülerden, Y., Toktaş, C., Aybek, H., *et al.* The renoprotective effects of mannitol and udenafil in renal ischemia-reperfusion injury model. *Invest. Clin. Urol.* **58(4)**, 289-295 (2017).
3. Kang, K.K., Ahn, G.J., Ahn, B.O., *et al.* DA-8159, a new PDE5 inhibitor, induces penile erection in conscious and acute spinal cord injured rabbits. *Eur. Urol.* **43(6)**, 689-695 (2003).

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