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DATASHEET

Captopril

Product overview

Name Captopril HB3636 Cat No **Alternative names** CAP **Biological action** Inhibitor **Purity** >98%

Description ACE and LTA₄ hydrolase inhibitor

Biological Data

Biological description Angiotensin-converting enzyme (ACE) inhibitor ($IC_{50} = 0.022\mu M$) which also inhibits LTA₄ hydrolase in

a reversible and competitive manner.

Shows antihypertensive and vasodilatory effects

Orally active.

Recently studied as part of COVID-19 compound repurposing.

Solubility & Handling

Solubility overview Storage instructions Soluble in water (100mM) and in DMSO (100mM)

+4°C

Storage of solutions

Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

In aqueous solution, Captopril undergoes a free radical dimerisation to form captopril disulfide. To

delay oxidation, use a lower pH, degas solution, minimize headspace, increase the concentration or

incorporate a chelating agent or antioxidant.

Shipping Conditions

Important

Handling

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use

Chemical Data

Chemical name Molecular Weight **Chemical structure** 1-[(2S)-3-Mercapto-2-methyl-1-oxopropyl]-L-proline 217.29

Molecular Formula **CAS Number PubChem identifier SMILES**

62571-86-2 44093

O=C([C@H](C)CS)N1[C@H](C(O)=O)CCC1

InChi InChi=1S/C9H15NO3S/c1-6(5-14)8(11)10-4-2-3-7(10)9(12)13/h6-7,14H,2-5H2,1H3,(H,12,13)/t6-,7+

/m1/s1

InChiKey FAKRSMQSSFJEIM-RQJHMYQMSA-N

MDL number MFCD00168073

References

Effects of early captopril treatment and its removal on plasma angiotensin converting enzyme (ACE) activity and arginine vasopressin in hypertensive rats (SHR) and normotensive rats (WKY)

Zhang et al (1996) Clin Exp Hypertens 18(2) **PubMedID** 8869001

A SARS-CoV-2 protein interaction map reveals targets for drug repurposing

Gordon et al (2020) Nature doi: 10.1038/s41586-020-2286-9.

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Brogden et al (1988) Drugs. 36(5)

PubMedID 3063499