



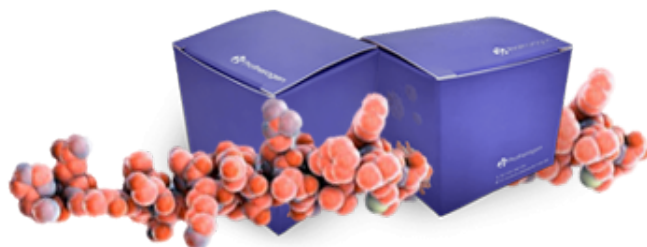
Cefoperazone sodium

Cat. No.:	OB0225WX-2629
Appearance:	Solid
Purity:	≥99%
Identity:	Confirmed by NMR, and HPLC.
Size:	25 mg; 50 mg; 100 mg; 200 mg; 500 mg

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	Cefoperazone sodium is the sodium salt of a semi-synthetic beta-lactamase-resistant antibiotic that exhibits broad-spectrum bactericidal activity.
--------------------	--



Synonym	CP 52640-2; 62893-20-3; Cefoperazone; Cefobid; Cefoperazono; Cefoperazonum; Pera cef; Cefoperazone acid; Cefoperazone (Cefobid); MFCD00865067; Cefoperazine; Cefo perazone (sodium salt); (6R,7R)-7-((R)-2-(4-Ethyl-2,3-dioxo -1-piperazinylcarboxamido)-2-(4-hydroxyphenyl)acetamido)-3-((1-methyl-1H-tetrazol-5-yl)thiomethyl)-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-2-carbonsaeure; (6R,7R)-7-[[[(2R)-2-[(4-ethyl-2,3-dioxopiperazine-1-carbonyl)amino]-2-(4-hydroxyphenyl)acetyl]amino]-3-[(1-methyltetrazol-5-yl)sulfanylmethyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid; 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,7-[[[(2R)-[(4-ethyl-2,3-dioxo-1-piperaz inyl)carbonyl]amino]-(4-hydroxyphenyl)acetyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid; (6R,7R)-7-((R)-2-(4-ethyl-2,3-dioxopiperazine-1-carboxamido)-2-(4-hydroxyphenyl)acetamido)-3-(((1-methyl-1H-tetrazol-5-yl)thio)methyl)-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid; (6R,7R)-7-((R)-2-(4-ethyl-2,3-dioxopiperazine-1-carboxamido)-2-(4-hydroxyphenyl)acetamido)-3-((1-methyl-1H-tetrazol-5-yl)thio)methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid; Bioperazone; Cefoperazon; Myticef; Pathozone; (6R, 7R)-7-[(2R)-2-[(4-ethyl-2,3-dioxopiperazine-1-carbonyl)amino]-2-(4 -hydroxyphenyl)acetamido]-3-[[[(1-methyl-1H-1,2,3,4-tetrazol-5-yl)sulfanyl]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid; (6r,7r)-7-[[[(2r)- 2-[[[(4-ethyl-2,3-dioxopiperazin-1-yl)carbonyl] amino]-2-(4-hydroxyphenyl)acetyl] amino]-3-[[[(1-methyl-1h-tetrazol-5-yl) sulfanyl]methyl]-8-oxo-5-thia-1-azabicycl o[4.2.0]oct-2-ene-2-carboxylic acid
CAS No.	62893-20-3
Compound CID	44187
Formula	C ₂₅ H ₂₆ N ₉ NaO ₈ S ₂
Formula Weight	667.65

Specification

IUPAC Name	(6R,7R)-7-[[[(2R)-2-[(4-Ethyl-2,3-dioxopiperazine-1-carbonyl)amino]-2-(4-hydroxyphenyl)acetyl]amino]-3-[(1-methyltetrazol-5-yl)sulfanylmethyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid
InChI	InChI=1S/C25H27N9O8S2/c1-3-32-8-9-33(21(39)20(32)38)24(42)27-15(12-4-6-14(35)7-5-12)18(36)26-16-19(37)34-17(23(40)41)13(10-43-22(16)34)11-44-25-28-29-30-31(25)2/h4-7,15-16,22,35H,3,8-11H2,1-2H3,(H,26,36)(H,27,42)(H,40,41)/t15-,16-,22-/m1/s1
InChI Key	GCFBRXLSHGKWDP-XCGNWRKASA-N
SMILES string	CCN1CCN(C(=O)C1=O)C(=O)N[C@H](C2=CC=C(C=C2)O)C(=O)N[C@H]3[C@@H]4N(C3=O)C(=C(CS4)CSC5=NN=NN5C)C(=O)O
Stability	3 years in powder form.
Storage	Storage at -20°C.
Applications	Cefoperazone sodium is utilized in microbiology research as a third-generation cephalosporin antibiotic to investigate the inhibition of bacterial cell wall synthesis and its efficacy against broad-spectrum pathogens.

Library Information

Target	Bacterial protein
Pathways	Microbiology
Plate Number	L6700-07
Empty Location	a1-h1; a12-h12
Container	96-well plate
Formulation	10mM DMSO
DMSO Max Solubility	100 mg/mL; 149.78 mM
ALogP	-2.266
HBA_Count	8
HBD_Count	3
Rotatable Bond	9