# PRODUCT INFORMATION



# Cefoselis (sulfate)

Item No. 34414

CAS Registry No.: 122841-12-7

Formal Name: (6R,7R)-7-[[(2Z)-2-(2-amino-4-thiazolyl)-2-

> (methoxyimino)acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl] methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-

Synonym:

MF:

FW: **Purity:** UV/Vis.: A solid Supplied as: -20°C Storage: Stability: ≥4 years

ene-2-carboxylic acid, monosulfate FK-037  $C_{19}H_{22}N_8O_6S_2 \bullet H_2SO_4$ 620.6  $\lambda_{max}$ : 261 nm H<sub>2</sub>SO<sub>4</sub>

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### **Laboratory Procedures**

Cefoselis (sulfate) is supplied as a solid. Aqueous solutions of cefoselis (sulfate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of cefoselis (sulfate) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Cefoselis is a cephalosporin antibiotic.<sup>1</sup> It is active against clinical isolates of extended-spectrum β-lactamase-producing E. coli, K. pneumoniae, and P. mirabilis, as well as C. freundii, E. aerogenes, E. cloacae, S. marcescens, and P. vulgaris with susceptibility rates ranging from 56.7 to greater than 94%. Cefoselis is protective against lethality in mouse models of systemic methicillin-susceptible S. aureus (MSSA), low-level methicillin-resistant S. aureus (L-MRSA), high-level methicillin-resistant S. aureus (H-MRSA), S. pneumoniae, E. coli, K. pneumoniae, or P. aeruginosa infection (ED<sub>50</sub>s = ≤0.025-1.56 mg/kg).¹ It reduces the number of renal colony forming units (CFUs) in a mouse model of S. epidermidis-induced ascending pyelonephritis when administered at a dose of 50 mg/kg.

#### References

- 1. Cheng, J.-W., Su, J.-R., Xiao, M., et al. In vitro activity of a new fourth-generation cephalosporin, cefoselis, against clinically important bacterial pathogens in China. Front. Microbiol. 11, 180 (2020).
- 2. Mine, Y., Watanabe, Y., Sakamoto, H., et al. In vivo antibacterial activity of FK037, a novel parenteral broad-spectrum cephalosporin. J Antibiot. (Tokyo) 46(1), 88-98 (1993).

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

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.

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