

CERTIFICATE OF ANALYSIS

PRODUCT:	Cephalexin, Monohydrate C ₁₆ H ₁₇ N ₃ O ₄ S·H ₂ O M.W. 365.4, CAS# [15686-71-2]
PRODUCT NUMBER:	C-2749
LOT NUMBER:	H1194A
APPEARANCE:	White to off-white powder
ASSAY:	1001 µg/mg
IDENTIFICATION(IR):	Conforms
IMPURITY(Individual):	0.04%
IMPURITY(Total):	0.18%
N,N-DIMETHYLANILINE:	< 0.002%
OPTICAL ROTATION:	+ 154°
pH:	4.7
WATER:	5.2%
DESCRIPTION:	<p>Cephalexin, Monohydrate is a semi-synthetic, cephalosporin antibiotic. It is a first generation cephalosporin. Inhibitor of cell wall synthesis. Active against gram positive bacteria. Moderately active against gram negative bacteria, B-lactamase sensitive. It is used in the treatment of susceptible infections of the respiratory tract, urinary tract, and skin used to study the effect of expression, binding, and inhibition of PBP3 and other penicillin-binding proteins (PBPs) on bacterial cell wall mucopeptide synthesis. Cephalexin and other antibiotics have been shown to inhibit p-aminohippurate uptake by the rat renal organic anion transporter 1, as expressed in <i>Xenopus laevis</i> oocytes. A study of CHO cells transfected with the vector for the H⁺-coupled peptide transporter PEPT1 has shown that cephalexin is a competitor for dipeptide transport. Cephalexin has been used to culture <i>E. coli</i> at 10 µg/mL for the expression of fusion proteins.</p>
STORAGE & HANDLING:	Store desiccated at +4°C. CAUTION: For laboratory research & scientific manufacturing use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: KS