

Certificate of Analysis

PRODUCT:	Lestaurtinib CEP-701; KT-5555; SPM-924 C₂₆H₂₁N₃O₄, M.W. 439.5, CAS# [111358-88-4]
PRODUCT NUMBER:	L-2374
LOT NUMBER:	L1179
APPEARANCE:	White crystalline solid
IR:	Conforms
PURITY (HPLC):	100.0%
PURITY (TLC):	100%
MASS SPEC:	MH+ 440.4
UV:	λ max: 370, 353, 337, 292, 245 nm
DESCRIPTION:	<p>Janus-associated kinases (JAKs) are cytoplasmic tyrosine kinases that are required for activating the signaling of certain cytokines and growth factor receptors. A JAK2 gene fusion mutation, JAK2^{V617F}, that causes unchecked activation of various growth factors and cytokines, has been linked to myeloproliferative disorders. Lestaurtinib is a staurosporine analog that potently inhibits JAK2 kinase (IC₅₀ = 1 nM) and downstream targets STAT5 (IC₅₀ = 10-30 nM) and STAT3 in a human erythroleukemic cell line expressing the JAK2^{V617F} mutation. It has been used to reduce tumor growth in a xenograft model of pancreatic ductal adenocarcinoma, to inhibit cell growth in a trk-B overexpressing neuroblastoma xenograft model, and to block proliferation and induce apoptosis in Hodgkin lymphoma cell lines. Lestaurtinib has since been reported to potently inhibit the epigenetic kinase PRK1 <i>in vitro</i> (IC₅₀ = 8.6 nM), inducing hypophosphorylation of histone H3 threonine 11 and blocking androgen-dependent gene expression in prostate cancer cells at a concentration of 5 μM.</p>
STORAGE & HANDLING:	Store desiccated at -20°C.

CAUTION: For research 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