

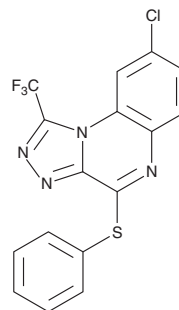
PRODUCT INFORMATION



R-7050

Item No. 16870

CAS Registry No.: 303997-35-5
Formal Name: 8-chloro-4-(phenylthio)-1-(trifluoromethyl)-[1,2,4]triazolo[4,3-a]quinoxaline
Synonym: TNF- α Antagonist III
MF: C₁₆H₈ClF₃N₄S
FW: 380.8
Purity: \geq 95%
UV/Vis.: λ_{max} : 220, 310, 325, 340 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

R-7050 is supplied as a crystalline solid. A stock solution may be made by dissolving the R-7050 in the solvent of choice, which should be purged with an inert gas. R-7050 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of R-7050 in these solvents is approximately 1 and 10 mg/ml, respectively.

Description

R-7050 is a cell-permeable antagonist of signaling through the TNF- α receptor complex ($EC_{50} = 0.631 \mu\text{M}$).¹ It blocks TNF- α -induced binding of TNF- α receptor I with TNF- α receptor-associated death domain protein and receptor interacting protein 1, which, in turn, prevents internalization of the receptor complex.¹ R-7050 is 2.3-fold more selective for TNF- α -mediated signaling than for that driven by IL-1 β .¹ It has been used to investigate the role of TNF- α in neurovascular injury and mycotoxin-induced anorexia.^{2,3}

References

1. Gururaja, T.L., Yung, S., Ding, R., *et al.* A class of small molecules that inhibit TNF α -induced survival and death pathways via prevention of interactions between TNF α RI, TRADD, and RIP1. *Chem. Biol.* **14**(10), 1105-1118 (2007).
2. King, M.D., Alleyne, C.H., Jr., and Dhandapani, K.M. TNF-alpha receptor antagonist, R-7050, improves neurological outcomes following intracerebral hemorrhage in mice. *Neurosci. Lett.* **542**, 92-96 (2013).
3. Wu, W. and Zhang, H. Role of tumor necrosis factor- α and interleukin-1 β in anorexia induction following oral exposure to the trichothecene deoxynivalenol (vomitoxin) in the mouse. *J. Toxicol. Sci.* **39**(6), 875-886 (2014).

WARNING

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

SAFETY DATA

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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