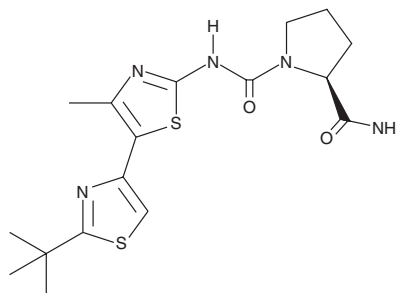


# PRODUCT INFORMATION



A-66  
Item No. 17382

**CAS Registry No.:** 1166227-08-2  
**Formal Name:** (2S)-N<sup>1</sup>-[2-(1,1-dimethylethyl)-4'-methyl[4,5'-bithiazol]-2'-yl]-1,2-pyrrolidinedicarboxamide  
**MF:** C<sub>17</sub>H<sub>23</sub>N<sub>5</sub>O<sub>2</sub>S<sub>2</sub>  
**FW:** 393.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 306 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

## Laboratory Procedures

A-66 is supplied as a crystalline solid. A stock solution may be made by dissolving the A-66 in the solvent of choice, which should be purged with an inert gas. A-66 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of A-66 in these solvents is approximately 10 mg/ml.

A-66 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, A-66 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. A-66 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

A-66 is a potent, selective inhibitor of the PI3K isoform p110α (IC<sub>50</sub> = 32 nM in a cell-free assay).<sup>1</sup> It displays over 100-fold selectivity for p110α over other isoforms. A-66 is effective *in vivo*, suppressing the growth of SKOV3 tumor xenografts in mice.<sup>1</sup> It also impairs all measures of *in vivo* insulin action in mice.<sup>2</sup> A-66 partially suppresses B cell receptor-dependent Akt activation and proliferation.<sup>3</sup>

## References

1. Jamieson, S., Flanagan, J.U., Kolekar, S., *et al.* A drug targeting only p110α can block phosphoinositide 3-kinase signalling and tumour growth in certain cell types. *Biochem. J.* **438(1)**, 53-62 (2011).
2. Smith, G.C., Ong, W.K., Rewcastle, G.W., *et al.* Effects of acutely inhibiting PI3K isoforms and mTOR on regulation of glucose metabolism *in vivo*. *Biochem. J.* **442(1)**, 161-169 (2012).
3. So, L., Yea, S.S., Oak, J.S., *et al.* Selective inhibition of phosphoinositide 3-kinase p110α preserves lymphocyte function. *The Journal of Biological Chemistry* **288(8)**, 5718-5731 (2013).

### 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.

### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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