



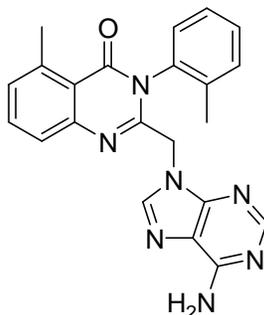
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## Technical Data Sheet

**For research use only**  
Not intended or approved for  
diagnostic or therapeutic use.

**Product Name:** IC87114 (PI 3-Kinase  $\delta$  inhibitor)

**Product Number:** B-0305



**Molecular Formula:** C<sub>22</sub>H<sub>19</sub>N<sub>7</sub>O    **MW:** 397.43    **CAS:** 371242-69-2

**Solubility:** DMSO 5 mg/mL

**Storage:** -20 °C

**Field of Interest:** IC87114 is a specific inhibitor of PI 3-kinase  $\delta$  (IC<sub>50</sub> = 0.5  $\mu$ M) with >60-fold selectivity over other isoforms (IC<sub>50</sub>  $\alpha$  = >100  $\mu$ M,  $\beta$  = 75  $\mu$ M,  $\gamma$  = 29  $\mu$ M). It does not inhibit other protein kinases (p38MAPK, CHK1, cSrc, PKB $\alpha$ , CK1, PKC $\alpha$ , PKC $\beta$ II) at 10  $\mu$ M. PI 3-K $\delta$  has an important role in inflammation and inhibition has been shown to impair neutrophil migration. Administration of IC87114 in a mouse asthma model decreased allergic airway inflammation.

**References:** 1) C. Sadhu, *et al.* "Essential Role of Phosphoinositide 3-Kinase  $\delta$  in Neutrophil Directional Movement" *J. Immunol.*, **2003**, 170, 2647-2654, 2) K.D. Puri, *et al.* "Mechanisms and Implications of Phosphoinositide 3-Kinase  $\delta$  in Promoting Neutrophil Trafficking into Inflamed Tissue" *Blood*, **2004**, 103, 3448-5456, 3) K.S. Lee, *et al.* "Inhibition of Phosphoinositide 3-Kinase  $\delta$  Attenuates Allergic Airway Inflammation and Hyperresponsiveness in Murine Asthma Model" *FASEB J.*, **2006**, 20, 455-465.

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. IC87114 is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

**Warranty and Disclaimer:** Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.