

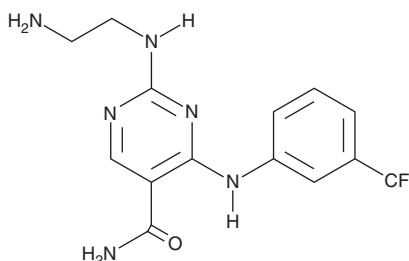
# PRODUCT INFORMATION



## Syk Inhibitor II

Item No. 18202

**CAS Registry No.:** 726695-51-8  
**Formal Name:** 2-[(2-aminoethyl)amino]-4-[[3-(trifluoromethyl)phenyl]amino]-5-pyrimidinecarboxamide  
**Synonym:** Spleen Tyrosine Kinase Inhibitor II  
**MF:** C<sub>14</sub>H<sub>15</sub>F<sub>3</sub>N<sub>6</sub>O  
**FW:** 340.3  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 260, 284 nm



### Laboratory Procedures

For long term storage, we suggest that Syk inhibitor II be stored as supplied at -20°C. It should be stable for at least two years.

Syk inhibitor II is supplied as a crystalline solid. A stock solution may be made by dissolving the Syk inhibitor II in the solvent of choice. Syk inhibitor II is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of Syk inhibitor II in these solvents is approximately 15 and 25 mg/ml, respectively.

Syk inhibitor II is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

Syk is a non-receptor tyrosine kinase that upon phosphorylation binds to immunoreceptor tyrosine-based activation motifs and mediates downstream signaling. Syk inhibitor II is a cell-permeable, pyrimidine-carboxamide compound that selectively and reversibly blocks Syk (IC<sub>50</sub> = 41 nM) in an ATP-competitive manner.<sup>1</sup> It is much less potent against PKCε, PKCβII, ZAP-70, Btk, and Itk (IC<sub>50</sub>s = 5.1, 11, 11.2, 15.5, and 22.6 μM, respectively).<sup>1</sup> Syk inhibitor II has been shown to prevent FcεRI-mediated 5-HT release in RBL-2H3 cells *in vitro* (IC<sub>50</sub> = 460 nM) and to inhibit passive cutaneous anaphylaxis reactions in mice (ID<sub>50</sub> = 13.2 mg/kg, s.c.).<sup>1</sup>

### Reference

1. Hisamichi, J., Naito, R., Toyoshima, A., *et al.* Synthetic studies on novel Syk inhibitors. Part 1: Synthesis and structure-activity relationships of pyrimidine-5-carboxamide derivatives. *Bioorg. Med. Chem.* **13(16)**, 4936-4951 (2005).

#### 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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