

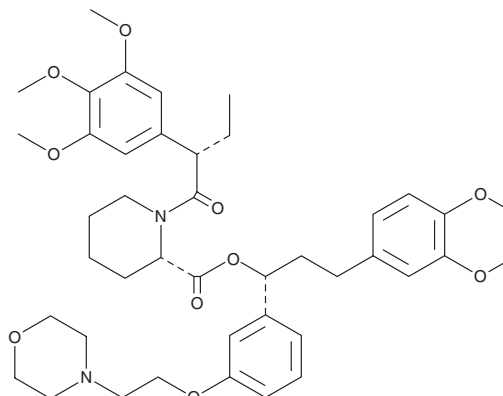
# PRODUCT INFORMATION



## Shield-1

Item No. 37325

**CAS Registry No.:** 914805-33-7  
**Formal Name:** 1-[(2S)-1-oxo-2-(3,4,5-trimethoxyphenyl)butyl]-(2S)-2-piperidinecarboxylic acid, (1R)-3-(3,4-dimethoxyphenyl)-1-[3-[2-(4-morpholinyl)ethoxy]phenyl]propyl ester  
**Synonym:** Shld1  
**MF:** C<sub>42</sub>H<sub>56</sub>N<sub>2</sub>O<sub>10</sub>  
**FW:** 748.9  
**Purity:** ≥98%  
**Supplied as:** A 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

Shield-1 is supplied as a solid. A stock solution may be made by dissolving the shield-1 in the solvent of choice, which should be purged with an inert gas. Shield-1 is soluble in DMSO.

### Description

Shield-1 is a protein stabilizing ligand that prevents the proteosomal degradation of proteins fused to FK-506 binding protein 1A (FKBP12) containing a leucine-to-proline substitution at position 106 (FKBP12<sup>L106P</sup>).<sup>1</sup> It displays specific binding for the destabilizing domain FKBP12<sup>L106P</sup> and does not interfere with other measured cell processes. Shield-1 inhibits decreases in fluorescence in NIH3T3 cells stably expressing YFP-FKBP12<sup>L106P</sup> in a concentration-dependent manner. It increases secretion of IL-2-FKBP12<sup>L106P</sup> in HCT116 cells stably expressing IL-2-FKBP12<sup>L106P</sup> when used at a concentration of 1 μM.<sup>2</sup> *In vivo*, shield-1 (5 and 10 mg/kg every two days) reduces tumor volume in a mouse xenograft model using HCT116 cells stably expressing IL-2-FKBP12<sup>L106P</sup>.

### References

1. Banaszynski, L.A., Chen, L.-c., Maynard-Smith, L.A., *et al.* A rapid, reversible, and tunable method to regulate protein function in living cells using synthetic small molecules. *Cell* **126**(5), 995-1004 (2006).
2. Banaszynski, L.A., Sellmyer, M.A., Contag, C.H., *et al.* Chemical control of protein stability and function in living mice. *Nat. Med.* **14**(10), 1123-1127 (2008).

#### 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

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