# PRODUCT INFORMATION



## Aspartyl-alanyl-diketopiperazine

Item No. 37715

CAS Registry No.: 110954-19-3

5S-methyl-3,6-dioxo-2S-piperazineacetic acid Formal Name:

Synonym: DA-DKP MF:  $C_7H_{10}N_2O_4$ FW: 186.2 **Purity:** ≥90% 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**

Aspartyl-alanyl-diketopiperazine is supplied as a solid. A stock solution may be made by dissolving the aspartyl-alanyl-diketopiperazine in the solvent of choice, which should be purged with an inert gas. Aspartyl-alanyl-diketopiperazine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of aspartyl-alanyl-diketopiperazine in these solvents is approximately 30 mg/ml. Aspartyl-alanyl-diketopiperazine is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of aspartyl-alanyl-diketopiperazine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of aspartyl-alanyl-diketopiperazine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

Aspartyl-alanyl-diketopiperazine is an immunosuppressive diketopiperazine derivative of a human serum albumin (HSA) peptide. It reduces antigen-induced TNF- $\alpha$  and IFN- $\gamma$  production in isolated human T cells when used at a concentration of 500 μM.

#### Reference

1. Shimonkevitz, R., Thomas, G., Slone, D.S., et al. A diketopiperazine fragment of human serum albumin modulates T-lymphocyte cytokine production through Rap1. J. Trauma 64(1), 35-41 (2008).

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

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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