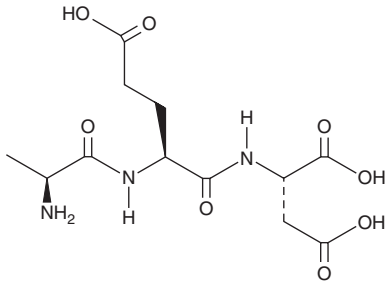
PRODUCT INFORMATION

H-Ala-Glu-Asp-OH

Item No. 45082

CAS Registry No.:	85806-95-7
Formal Name:	L-alanyl-L-α-glutamyl-L-aspartic acid
Synonyms:	AED, T-31
Peptide Sequence:	H-AED-OH
MF:	$C_{12}H_{19}N_3O_8$
FW:	333.3
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

H-Ala-Glu-Asp-OH (AED) is supplied as a solid. A stock solution may be made by dissolving the AED in the solvent of choice, which should be purged with an inert gas. AED is sparingly soluble (1-10 mg/ml) in DMSO.

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 AED can be prepared by directly dissolving the solid in aqueous buffers. AED is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

AED is a synthetic tripeptide with geroprotective effects *in vitro*.[1,2] It increases proliferation and reduces apoptosis in young and aged rat skin fibroblast cultures but reduces matrix metalloproteinase-9 (MMP-9) levels only in young cultures.[1] AED (20 ng/ml) increases sirtuin 1 (SIRT1), SIRT6, and collagen I levels in young and aged human skin fibroblast cultures.[2] It also prevents mortality in a mouse model of cisplatin-induced acute kidney injury (AKI) when administered at a dose of 3 µg/kg.[3]

References

1. Lin'kova, N.S., Drobintseva, A.O., Orlova, O.A., *et al.* Peptide regulation of skin fibroblast functions during their aging *in vitro*. *Bull. Exp. Biol. Med.* **161(1)**, 175-178 (2016).
2. Fridman, N.V., Linkova, N.S., Kozhevnikova, E.O., *et al.* Comparison of the effects of KE and AED peptides on functional activity of human skin fibroblasts during their replicative aging. *Bull. Exp. Biol. Med.* **170(1)**, 154-157 (2020).
3. Shchudrova, T.S., Zamorskii, I.I., and Korotun, O.P. Evaluation of a renoprotective potential of organospecific peptides under the conditions of acute kidney injury of different etiology. *J. Sport Health Sci.* **8(1)**, 221-227 (2018).

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