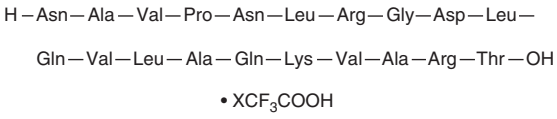
PRODUCT INFORMATION

A20FMDV2 (trifluoroacetate salt)

Item No. 36958

Formal Name: L-asparaginyl-L-alanyl-L-valyl-L-prolyl-L-asparaginyl-L-leucyl-L-arginylglycyl-L-α-aspartyl-L-leucyl-L-glutaminyl-L-valyl-L-leucyl-L-alanyl-L-glutaminyl-L-lysyl-L-valyl-L-alanyl-L-arginyl-L-threonine, trifluoroacetate salt



Peptide Sequence: NAVPNLRGDLQVLAQKVART-OH
MF: $C_{93}H_{163}N_{31}O_{28}$ • XCF_3COOH
FW: 2,163.5
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

A20FMDV2 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the A20FMDV2 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. A20FMDV2 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of A20FMDV2 (trifluoroacetate salt) in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

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 A20FMDV2 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of A20FMDV2 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

A20FMDV2 is a peptide that comprises the α-helical RGD cell-interacting domain on the VP1 capsid protein from foot-and-mouth disease virus (FMDV) serotype O and binds to αVβ6 integrin.[1] It inhibits αVβ6 integrin-dependent cell adhesion in H357 tongue squamous cell carcinoma cells expressing human αVβ6 (IC_{50} = 1.2 µM). When coupled with ^{111}indium-DTPA, A20FMDV2 (20 MBq) binds to αVβ6 integrin endogenously expressed for radiation imaging analysis in a MCF10CA1a breast cancer mouse xenograft model.[2]

References

1. DiCara, D., Rapisarda, C., Sutcliffe, J.L., *et al.* Structure-function analysis of Arg-Gly-Asp helix motifs in αvβ6 integrin ligands. *J. Biol. Chem.* **282(13),** 9657-9665 (2007).
2. Saha, A., Ellison, D., Thomas, G.J., *et al.* High-resolution *in vivo* imaging of breast cancer by targeting the pro-invasive integrin αvβ6. *J. Pathol.* **222(1),** 52-63 (2010).

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