

# PRODUCT INFORMATION



## Vimentin (140-160)-biotin Peptide (trifluoroacetate salt)

Item No. 37622

**Contents:** This vial contains 1 mg of lyophilized peptide.

**Formal Name:** N-(5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoyl)-L-glycyl-L-glutamyl-L-glycyl-L-lysyl-L-seryl-L-arginyl-L-leucyl-L-glycyl-L- $\alpha$ -aspartyl-L-leucyl-L-tyrosyl-L- $\alpha$ -glutamyl-L- $\alpha$ -glutamyl-L- $\alpha$ -glutamyl-L-methionyl-L-arginyl-L- $\alpha$ -glutamyl-L-leucyl-L-arginyl-L-arginyl-L-glutamine, trifluoroacetate salt

Biotin—Gly—Gln—Gly—Lys—Ser—Arg—Leu—Gly—Asp—Leu—

Tyr—Glu—Glu—Glu—Met—Arg—Glu—Leu—Arg—Arg

Gln—OH

• XCF<sub>3</sub>COOH

**Synonym:** VIM (140-160)-biotin

**Peptide Sequence:** Biotin-GQGKSRLGDLYEEMRELRRQ

**Uniprot No.:** P08670

**MF:** C<sub>115</sub>H<sub>190</sub>N<sub>38</sub>O<sub>38</sub>S<sub>2</sub> • XCF<sub>3</sub>COOH

**FW:** 2,777.1

**Purity:** ≥95%

**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.

### Description

Vimentin (140-160)-biotin peptide is a biotinylated version of the cytoskeletal intermediate filament protein vimentin, which undergoes citrullination and has been found as the citrullinated form in the synovial fluid of rheumatoid arthritis patients.<sup>1</sup> Vimentin is subject to citrullination by peptidyl arginine deiminase 2 (PAD2) under high calcium concentrations, which can occur during macrophage apoptosis.<sup>2,3</sup> Cayman's Vimentin (140-160)-biotin Peptide is intended for use as a negative control in the detection of autoantibodies against citrullinated vimentin and is the non-citrullinated form of Citrullinated Vimentin (R144) (140-160)-biotin Peptide (Item No. 37624).

### References

1. Bang, H., Egerer, K., Gauliard, A., *et al.* Mutation and citrullination modifies vimentin to a novel autoantigen for rheumatoid arthritis. *Arthritis Rheum.* **56(8)**, 2503-2511 (2007).
2. Li, F.J., Surolia, R., Li, H., *et al.* Citrullinated vimentin mediates development and progression of lung fibrosis. *Sci. Transl. Med.* **13(585)**, eaba2927 (2021).
3. Asaga, H., Yamada, M., and Senshu, T. Selective deimination of vimentin in calcium ionophore-induced apoptosis of mouse peritoneal macrophages. *Biochem. Biophys. Res. Commun.* **243(3)**, 641-646 (1998).

#### 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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