

# PRODUCT INFORMATION

## ERK1/2 (Phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin Peptide (trifluoroacetate salt)

Item No. 44663

<b>Formal Name:</b>	(2S,5S,8S,11S,14S,17S,20S,23S,26S,29S)-29-((2S,5S,8S,14S,17S)-17-((1H-imidazol-5-yl)methyl)-8-benzyl-14-((R)-1-hydroxyethyl)-5-isobutyl-4,7,10,13,16,19-hexaoxo-23-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)-2-((R)-1-(phosphonoxy)ethyl)-3,6,9,12,15,18-hexaazatricosanamido)-11-((1H-indol-3-yl)methyl)-5,14-bis(3-guanidinopropyl)-8-(4-hydroxybenzyl)-17-((R)-1-hydroxyethyl)-23-isopropyl-2,20-dimethyl-4,7,10,13,16,19,22,25,28-nonaoxo-26-(4-(phosphonoxy)benzyl)-3,6,9,12,15,18,21,24,27-nonaazadotriacontanedioic acid, trifluoroacetate salt	Biotin – His – Thr – Gly – Phe – Leu – Thr(PO <sub>3</sub> H <sub>2</sub> ) – Glu – Tyr(PO <sub>3</sub> H <sub>2</sub> ) – Val – Ala – Thr – Arg – Trp – Tyr – Arg – Ala – OH • XCF <sub>3</sub> COOH
<b>Synonyms:</b>	Biotin-ERK1/2 (Phospho-Thr <sup>202</sup> /Tyr <sup>204</sup> ) Peptide, Biotin-ERK1/2-Thr <sup>202</sup> /Tyr <sup>204</sup> Peptide	
<b>Peptide Sequence:</b>	Biotin-HTGFL-pT-E-pY-VATRWYRA-OH	
<b>MF:</b>	C <sub>102</sub> H <sub>147</sub> N <sub>27</sub> O <sub>32</sub> P <sub>2</sub> S • XCF <sub>3</sub> COOH	
<b>FW:</b>	2,357.5	
<b>Purity:</b>	≥95%	
<b>Supplied as:</b>	A solid	
<b>Storage:</b>	-20°C	
<b>Stability:</b>	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin peptide (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin peptide (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin peptide (trifluoroacetate salt) is soluble (≥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 ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin peptide (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin peptide (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

### Description

ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>)-biotin peptide is a biotinylated and phosphorylated peptide fragment corresponding to amino acids 197 to 212 of ERK1 and 180 to 195 of ERK2. ERK1 and ERK2, also known as ERK1/2, are serine/threonine protein kinases and essential components of the MAP kinase signaling cascade.<sup>1</sup> Upon extracellular stimulation with mitogens, growth factors, or cytokines, the MAP kinase signaling cascade is initiated and terminates with dual phosphorylation of ERK1 and ERK2 in the activation segment's activation lip at Thr<sup>202</sup>/Tyr<sup>204</sup> or Thr<sup>185</sup>/Tyr<sup>187</sup>, respectively, by MEK1/2.<sup>1-4</sup> Upon activation, ERK1/2 phosphorylate and activate substrates in the cytosol or various subcellular compartments, including the nucleus where they induce activation of transcription factors involved in cell proliferation, differentiation, and the stress response.<sup>2,3,5,6</sup> This product can be used in the detection of antibodies targeting ERK1/2 (phospho-Thr<sup>202</sup>/Tyr<sup>204</sup>) in biological samples.

**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**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## References

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