PRODUCT INFORMATION

NF-κB (p65) (Phospho-Ser^{276})-biotin Peptide

Item No. 44666

Formal Name: N-(5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoyl)-L-valyl-L-seryl-L-methionyl-L-glutaminyl-L-leucyl-L-arginyl-L-arginyl-L-prolyl-O-phosphono-L-seryl-L-aspartyl-L-arginyl-L-glutamyl-L-leucyl-L-seryl-L-glutamyl-L-proline

Synonyms: Biotin-NF-κB (p65) (Phospho-Ser^{276}) Peptide, NF-κB3 (Phospho-Ser^{276})-biotin Peptide, Nuclear Factor-κB (p65) (Phospho-Ser^{276})-biotin Peptide

Peptide Sequence: Biotin-VSMQLRRP-pS-DRELSEP-OH

Biotin—Val—Ser—Met—Gln—Leu—Arg—Arg—Pro—Ser(PO_3H_2)—Asp—Arg—Glu—Leu—Ser—Glu—Pro—OH

MF: $C_{88}H_{149}N_{28}O_{32}PS_2$

FW: 2,206.4

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.

Laboratory Procedures

NF-κB (p65) (phospho-Ser^{276})-biotin peptide is supplied as a solid. A stock solution may be made by dissolving the NF-κB (p65) (phospho-Ser^{276})-biotin peptide in the solvent of choice, which should be purged with an inert gas. NF-κB (p65) (phospho-Ser^{276})-biotin peptide 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 NF-κB (p65) (phospho-Ser^{276})-biotin peptide can be prepared by directly dissolving the solid in aqueous buffers. NF-κB (p65) (phospho-Ser^{276})-biotin peptide is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

NF-κB (p65) (phospho-Ser^{276})-biotin peptide is a biotinylated peptide corresponding to amino acids 268 to 283 of NF-κB p65. NF-κB p65 is a ubiquitously expressed transcription factor that is a subunit of the NF-κB complex and is encoded by the *RELA* gene in humans.[1] NF-κB p65 regulates the expression of a large number of genes in response to inflammatory and environmental cues that play critical roles in innate and adaptive immunity and cellular differentiation.[2] NF-κB p65 is activated following phosphorylation at serine 276 (Ser^{276}) by PKA or p90 ribosomal S6 kinase 1 (MSK1).[3,4] Phosphorylation at Ser^{276} promotes the protein-protein interaction between NF-κB p65 and p300/CREB-binding protein-associated factor (PCAF), increasing NF-κB-mediated transcription. Increases in phosphorylation and activation of NF-κB p65 have been found in various types of solid tumors from patients with breast cancer, the synovial tissue from patients with rheumatoid arthritis or osteoarthritis, and in naive CD4$^+$ T cells isolated from the whole blood of patients with multiple sclerosis.[5-8] This product can be used in the detection of antibodies targeting NF-κB (p65) (phospho-Ser^{276}) 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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