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FN3K Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7083b

Specification

FN3K Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9H479

FN3K Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 64122

Other Names
Fructosamine-3-kinase, 271-, FN3K

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7083b was selected from the C-term region of human FN3K. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FN3K Antibody (C-term) Blocking Peptide - Protein Information

Name FN3K {ECO:0000303|PubMed:14633848, ECO:0000312|HGNC:HGNC:24822}

FN3K Antibody (C-term) Blocking Peptide - Background

FN3K catalyzes phosphorylation of fructosamines formed by glycation, the nonenzymatic reaction of glucose with primary amines followed by Amadori rearrangement. Phosphorylation of fructosamines may initiate metabolism of the modified amine and result in deglycation of glycated proteins. Human and mouse FN3K share 86% amino acid identity. GENE Purified FN3K catalyzes ATP-dependent phosphorylation of a synthetic fructosamine, 1-deoxy-1-morpholinofructose (DMF). Recombinant mouse and human FN3K, expressed in E. coli, catalyze phosphorylation of DMF, fructoselysine, fructoseglycine, and fructose in order of decreasing affinity. They also phosphorylate glycated lysozyme, but not unmodified lysozyme. In addition to ATP, FN3K can utilize GTP, CTP, and UTP as phosphate donors.

Function
Fructosamine-3-kinase involved in protein deglycation by mediating phosphorylation of fructoselysine residues on glycated proteins, to generate fructoselysine-3 phosphate (PubMed:11016445, PubMed:11522682, PubMed:11975663). Fructoselysine-3 phosphate adducts are unstable and decompose under physiological conditions (PubMed:11522682, PubMed:11975663). Involved in intracellular deglycation in erythrocytes (PubMed:11975663). Involved in the response to oxidative stress by mediating deglycation of NFE2L2/NRF2, glycation impairing NFE2L2/NRF2 function (By similarity). Also able to phosphorylate psicosamines and ribulosamines (PubMed:14633848).

Tissue Location
Widely expressed (PubMed:11522682). Expressed in erythrocytes (PubMed:11016445).

FN3K Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides