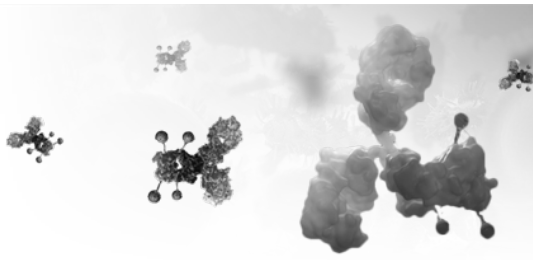

Human COASY (phospho S182) peptide (DAG-P0362)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	Coenzyme A (CoA) functions as a carrier of acetyl and acyl groups in cells and thus plays an important role in numerous synthetic and degradative metabolic pathways in all organisms. In eukaryotes, CoA and its derivatives are also involved in membrane trafficking and signal transduction. This gene encodes the bifunctional protein coenzyme A synthase (CoAsy) which carries out the last two steps in the biosynthesis of CoA from pantothenic acid (vitamin B5). The phosphopantetheine adenylyltransferase domain of this bifunctional protein catalyzes the conversion of 4-phosphopantetheine into dephospho-coenzyme A (dpCoA) while its dephospho-CoA kinase domain completes the final step by phosphorylating dpCoA to form CoA. Mutations in this gene are associated with neurodegeneration with brain iron accumulation (NBIA). Alternative splicing results in multiple isoforms. [provided by RefSeq, Apr 2014]
Specificity	Expressed in all tissues examined including brain, heart, skeletal muscle, colon, thymus, spleen, kidney, liver, small intestine, placenta, lung and peripheral blood leukocyte. Lowest expression in peripheral blood leukocytes and highest in kidney and liv
Conjugate	Unconjugated
Sequence Similarities	In the central section; belongs to the eukaryotic coaD family.Contains 1 DPCK (dephospho-CoA kinase) domain.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

GENE INFORMATION

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Gene Name	COASY CoA synthase [Homo sapiens (human)]
Official Symbol	COASY
Synonyms	COASY; CoA synthase; NBP; DPCK; PPAT; UKR1; NBIA6; pOV-2; bifunctional coenzyme A synthase; nucleotide binding protein; phosphopantetheine adenylyltransferase / dephosphocoenzyme A kinase; bifunctional phosphopantetheine adenylyl transferase/dephospho CoA kinase;
Entrez Gene ID	80347
mRNA Refseq	NM_001042529.2
Protein Refseq	NP_001035994.1
UniProt ID	Q13057
Chromosome Location	17q12-q21
Pathway	Coenzyme A biosynthesis, organism-specific biosystem; Coenzyme A biosynthesis, pantothenate => CoA, organism-specific biosystem; Coenzyme A biosynthesis, pantothenate => CoA, conserved biosystem; Defective AMN causes hereditary megaloblastic anemia 1, organism-specific biosystem; Defective BTD causes biotidinase deficiency, organism-specific biosystem; Defective CD320 causes methylmalonic aciduria, organism-specific biosystem; Defective CUBN causes hereditary megaloblastic anemia 1, organism-spe
Function	ATP binding; dephospho-CoA kinase activity; pantetheine-phosphate adenylyltransferase activity; protein binding;

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