Recombinant Protein Technical Manual

Recombinant Human PAH/PH Protein (415 Asn/Asp, His Tag)

RPES3793

Product Data:

Product SKU: RPES3793

Size: 10µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: P00439

Protein Information:

Molecular Mass:	54 kDa
AP Molecular Mass:	50 kDa
Tag:	N-His
Bio-activity:	
Purity:	> 70 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% glycerol
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	PH;PKU;PKU1

Immunogen Information:

Sequence: Met 1-Lys 452

Background:

PAH (phenylalanine hydroxylase), also known as PH, belongs to the biopterin-dependent aromatic amino acid hydroxylase family. It contains 1 ACT domain, N-terminal region of PAH is thought to contain allosteric binding sites for phenylalanine and to constitute an 'inhibitory' domain that regulates the activity of a catalytic domain in the C-terminal portion of the molecule. In humans, PAH is expressed both in the liver and the kidney, and there is some indication that it may be differentially regulated in these tissues. PAH catalyzes the hydroxylation of the aromatic side-chain of phenylalanine to generate tyrosine. It is one of three members of the pterin-dependent amino acid hydroxylases, a class of monooxygenase that uses tetrahydrobiopterin and a non-heme iron for catalysis. Defects in PAH are the cause of phenylketonuria (PKU). PKU is an autosomal recessive inborn error of phenylalanine metabolism, due to severe phenylalanine hydroxylase deficiency. It is characterized by blood concentrations of phenylalanine persistently above 1200 mumol.