

PDK1 recombinant protein

Recombinant PDK1 protein, GST-Tag

CATALOG #
AAA60178

HOST
Baculovirus

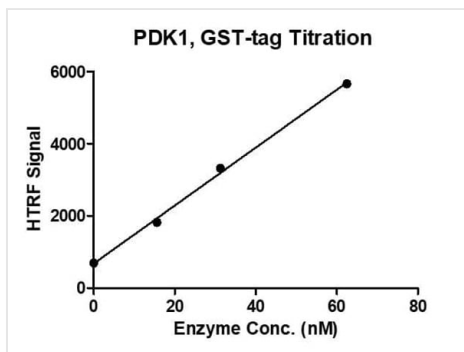
PRODUCT SYNONYMS

PDK1; Recombinant PDK1 protein; GST-Tag; Pyruvate Dehydrogenase Kinase 1; PDK1 recombinant protein

PRODUCT SPECIFICATIONS

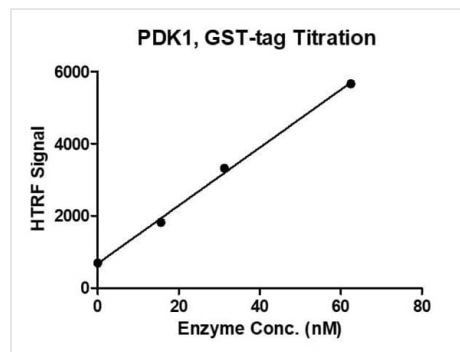
Host	Baculovirus
Form/Format	Recombinant PDK1 protein, GST-Tag is supplied in 25mM Tris-HCl pH8.0, 300mM NaCl, 10% glycerol, 0.04% Triton X-100 and 0.5mM TCEP.
Protein Species	Human
Tag	GST-Tag
Notes	Recombinant PDK1 protein, GST-Tag is suitable for use in binding assays, inhibitor screening, and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



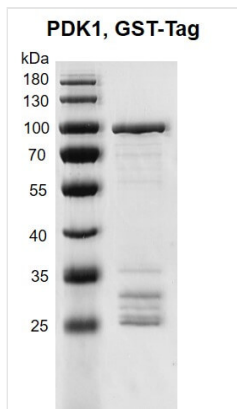
Application Data

HTRF assay for Recombinant PDK1 protein, GST-Tag 1 μ M STK S3 substrate was incubated with different concentrations of PDK1 protein in 10 μ l reaction system containing 1 $\times$ Enzymatic Buffer, 2 mM MgCl₂, 1 mM DTT and 100 μ M ATP for 1 hour. The detection reagents were added and incubated with the reactions for 1 hr. All the operations and reactions were performed at room temperature, and HTRF KinASE STK assay was used to detect the enzymatic activity.



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SDS-PAGE

Recombinant PDK1 protein, GST-Tag 10% SDS-PAGE Coomassie staining MW: 89.8 kDa
Purity: >70%

ADDITIONAL INFORMATION

Related Product Information for PDK1 recombinant protein	Short Description: Recombinant PDK1 protein, GST-Tag was expressed in a baculovirus expression system as the full-length protein (accession number NP_002604.1) with an N-terminal GST tag. The molecular weight of the protein is 89.8 kDa. It is suitable for use in binding assays, inhibitor screening, and selectivity profiling. Background: PDK1 (Pyruvate Dehydrogenase Kinase 1), also known as PDHK1, is a serine/threonine kinase. It plays a key role in regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2. This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the tricarboxylic acid cycle, down-regulates aerobic respiration and inhibits the formation of acetyl-coenzyme A from pyruvate. PDK1 plays an important role in cellular responses to hypoxia and is important for cell proliferation under hypoxia. Protects cells against apoptosis in response to hypoxia and oxidative stress. Its activity can be enhanced by binding to the pyruvate dehydrogenase subunit DLAT, inhibited by AZD7545 (this compound interferes with DLAT binding and thereby inhibits kinase activity). Its activity can also be inhibited by dichloroacetate and radicicol.
Product Categories/Family for PDK1 recombinant protein	Recombinant Proteins; Kinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505695
NCBI GeneID	5170
NCBI Accession #	NP_002604.1
NCBI GenBank Nucleotide #	NM_002613.4
UniProt Accession #	O15530; Q59EH6; Q6FI20; Q8IV52; Q9BRD5; H0Y4Z0; Q6A1A2
Molecular Weight	50,838 Da
NCBI Official Full Name	3-phosphoinositide-dependent protein kinase 1 isoform 1
NCBI Official Synonym Full Names	3-phosphoinositide dependent protein kinase 1
NCBI Official Symbol	PDPK1
NCBI Official Synonym Symbols	PDK1; PDPK2; PDPK2P; PRO0461
NCBI Protein Information	3-phosphoinositide-dependent protein kinase 1
UniProt Protein Name	3-phosphoinositide-dependent protein kinase 1
UniProt Gene Name	PDPK1
UniProt Synonym Gene Names	PDK1; hPDK1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/pdpk1-recombinant-protein-baculovirus/60178>