PAK5 Protein, Human (Baculovirus, His)

Cat. No.:	HY-P72065
Synonyms:	erine/threonine-protein kinase PAK 5; PAK5
Species:	Human
Source:	Sf9 insect cells
Accession:	Q8TB93 (M1-Q293)
Gene ID:	57144
Molecular Weight:	Approximately 34.9 kDa

PROPERTIES

AA Sequence	M F G K K K K K I E I S G P S N F E H R V H T G F D A Q E Q K F T G L P Q Q W H S L L A D T A N R P K P M V D P S C I T P I Q L A P M K T I V R G N K P C K E T S I N G L L E D F D N I S V T R S N S L R K E S P P T P D Q G A S S H G P G H A E E N G F I T F S Q Y S S E S D T T A D Y T T E K Y R E K S L Y G D D L D P Y Y R G S H A A K Q N G H V M K M K H G E A Y Y S E V K P L K S D F A R F S A D Y H S H L D S L S K P S E Y S D L K W E Y Q R A S S S S P L D Y S F Q F T P S R T A G T S G C S K E S L A Y S E S E W G P S L D D Y D R R P K S S Y L N Q T S P Q P T M R Q R S R S G S G L Q
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm solution of Tris-based buffer, 50% Glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	PAK5, a serine/threonine protein kinase, is a versatile player in various signaling pathways, influencing cytoskeleton regulation, cell migration, proliferation, and cell survival. Activation by diverse effectors, including growth factor receptors or active CDC42 and RAC1, induces a conformational change and subsequent autophosphorylation on multiple serine

and/or threonine residues. PAK5's impact extends to the phosphorylation of the proto-oncogene RAF1, enhancing its kinase activity, and the promotion of cell survival through the phosphorylation of the BCL2 antagonist of cell death, BAD. Furthermore, PAK5 phosphorylates CTNND1, likely regulating cytoskeletal organization and cell morphology. It plays a role in microtubule stability by inhibiting MARK2 and simultaneously destabilizes the F-actin network, resulting in the disappearance of stress fibers and focal adhesions. PAK5 emerges as a key regulator at the intersection of diverse cellular processes.

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