

Bioactive

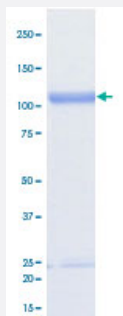
Full-Length

PAK3 (Human) Recombinant Protein

Catalog # P5790

Size 5 ug

Applications



Result of activity analysis

Result of activity analysis

□

Specification

Product Description	Human PAK3 (NP_002569.1, 1 a.a. - 544 a.a.) full-length recombinant protein with GST tag expressed in Baculovirus infected Sf21 cells.
Host	insect
Theoretical MW (kDa)	88
Form	Liquid
Preparation Method	Baculovirus infected insect cell (Sf21) expression system
Purification	Glutathione sepharose chromatography
Purity	84 % by SDS-PAGE/CBB staining

Activity	The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescence-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip3000. Substrate : DAPK1tide. ATP: 100 μ M.
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol)
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis

Applications

- Functional Study
- SDS-PAGE

Gene Info — PAK3

Entrez GeneID	5063
Protein Accession#	NP_002569.1
Gene Name	PAK3
Gene Alias	CDKN1A, MRX30, MRX47, OPHN3, PAK3beta, bPAK, hPAK3
Gene Description	p21 protein (Cdc42/Rac)-activated kinase 3
Omim ID	300142 300558
Gene Ontology	Hyperlink

Gene Summary

PAK proteins are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. PAK proteins, a family of serine/threonine p21-activating kinases, serve as targets for the small GTP binding proteins Cdc42 and RAC and have been implicated in a wide range of biological activities. The protein encoded by this gene forms an activated complex with GTP-bound RAS-like (P21), CDC2 and RAC1 proteins which then catalyzes a variety of targets. This protein may be necessary for dendritic development and for the rapid cytoskeletal reorganization in dendritic spines associated with synaptic plasticity. Defects in this gene are the cause of non-syndromic mental retardation X-linked type 30 (MRX30), also called X-linked mental retardation type 47 (MRX47). Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq]

Other Designations

OTTHUMP00000023855|OTTHUMP00000062894|beta-PAK|oligophrenin-3|p21 (CDKN1A)-activated kinase 3|p21-activated kinase 3|p21-activated kinase-3|serine/threonine-protein kinase PAK 3

Pathway

- [Axon guidance](#)
- [ErbB signaling pathway](#)
- [Focal adhesion](#)
- [Regulation of actin cytoskeleton](#)
- [Renal cell carcinoma](#)
- [T cell receptor signaling pathway](#)

Disease

- [Chronic Disease](#)
- [Cognition Disorders](#)
- [Endometrial Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Neuropsychological Tests](#)
- [Schizophrenia](#)