

## Recombinant Human PAK3 Protein (M1-R559), GST tagged

Cat. No. PAK3-1105H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human GST-TEV-PAK3(M1-R559 end) Protein was expressed in Insect cell.

**Species** Human

**Source** Insect Cells

**ProteinLength** M1-R559

#### Description

Serine/threonine protein kinase that plays a role in a variety of different signaling pathways including cytoskeleton regulation, cell migration, or cell cycle regulation. Plays a role in dendrite spine morphogenesis as well as synapse formation and plasticity. Acts as downstream effector of the small GTPases CDC42 and RAC1. Activation by the binding of active CDC42 and RAC1 results in a conformational change and a subsequent autophosphorylation on several serine and/or threonine residues. Phosphorylates MAPK4 and MAPK6 and activates the downstream target MAPKAPK5, a regulator of F-actin polymerization and cell migration. Additionally, phosphorylates TNNI3/troponin I to modulate calcium sensitivity and relaxation kinetics of thin myofilaments. May also be involved in early neuronal development. In hippocampal neurons, necessary for the formation of dendritic spines and excitatory synapses; this function is dependent on kinase activity and may be exerted by the regulation of actomyosin contractility through the phosphorylation of myosin II regulatory light chain (MLC).

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<b>Form</b>	Liquid
<b>Endotoxin</b>	< 0.01 EU per µg of the protein
<b>Purity</b>	90%
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
<b>Storage</b>	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Storage Buffer</b>	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
<b>Shipping</b>	It is shipped out with blue ice.

## GENE INFORMATION

<b>Gene Name</b>	PAK3 p21 protein (Cdc42/Rac)-activated kinase 3 [ Homo sapiens (human) ]
<b>Official Symbol</b>	PAK3
<b>Synonyms</b>	PAK3; p21 protein (Cdc42/Rac)-activated kinase 3; mental retardation, X linked 47, MRX30, MRX47, p21 (CDKN1A) activated kinase 3; serine/threonine-protein kinase PAK 3; bPAK; hPAK3; PAK-3; beta-PAK; oligophrenin-3; p21-activated kinase 3; p21 (CDKN1A)-activated kinase 3; MRX30; MRX47; OPHN3; CDKN1A; PAK3beta;
<b>Gene ID</b>	5063
<b>mRNA Refseq</b>	NM_001128166

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**Protein Refseq** NP\_001121638

**MIM** 300142

**UniProt ID** O75914

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