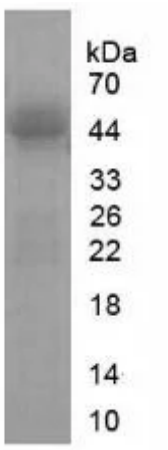
Active Lemur Tyrosine Kinase 3 (LMTK3)

Catalog#:PEH12934

概述（Summary）

别称（Alternative Names）	LMR3; TYKLM3; Serine/threonine-protein kinase LMTK3
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Leu133-Leu411】
Accession #	Q96Q04
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	45.9 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Protein kinase which phosphorylates ESR1 (in vitro) and protects it against proteasomal degradation. May also regulate ESR1 levels indirectly via a PKC-AKT-FOXO3 pathway where it decreases the activity of PKC and the phosphorylation of AKT, thereby increasing binding of transcriptional activator FOXO3 to the ESR1 promoter and increasing ESR1 transcription. Involved in endocytic trafficking of N-methyl-D-aspartate receptors (NMDAR) in neurons.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

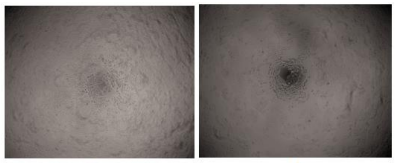


Figure 1. Cell proliferation of MCF-7 cells after stimulated with LMTK3 .
(A) MCF-7 cells cultured in serum-free DMEM, stimulated with 10ng/ml LMTK3 for 72h;
(B)Unstimulated MCF-7 cells cultured in serum-free DMEM for 72h.

Cell proliferation was assessed by CCK-8(Cell Counting Kit-8) assay after incubation with various concentrations of LMTK3 for 72h. The dose-effect curve of LMTK3 was shown in Figure2.It was obvious that LMTK3 significantly promoted cell proliferation of MCF-7 cells .The ED50 for this effect is approximately 6.14~50ng/ml.

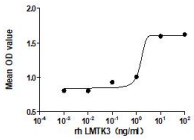


Figure 2. The dose-effect curve of LMTK3 on MCF-7 cells

Mechanism: Lemur tyrosine kinase 3 (LMTK3), a member of the receptor tyrosine kinase (RTK) family, is implicated in breast cancer growth and endocrine resistance.It has been reported that LMTK3 promotes cell invasion, motility, and migration of the MCF-7 breast cancer cell line . To test the bioactivity of LMTK3 ,MCF-7 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well in serum-free standard DMEM after adding to various concentrations of LMTK3 protein. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8(CCK-8). Briefly， 10 µl of CCK-8 solution was added to each well of the plate， then measure the absorbance at 450 nm using a microplate reader after incubating the plate for 1-4 hours at 37 °C . Cell proliferation of MCF-7 cells after incubation with LMTK3 for 72h observed by inverted microscope was shown in Figure 1.Cell proliferation of MCF-7 cells after incubation with LMTK3 for 72h observed by inverted microscope was shown in Figure 1.

注意事项（Note）

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