
Recombinant Human nemo-like kinase / NLK Protein (His & GST tag)**Cat.NO.: TP08488**

3th Edition

Synonyms:LAK1;NLK

Description:Nemo-like kinase contains 1 protein kinase domain and belongs to the protein kinase superfamily, CMGC Ser/Thr protein kinase family and MAP kinase subfamily. It also contains a TQE activation loop motif in which autophosphorylation of the threonine residue (Thr-298) is sufficient for kinase activation. As a serine/threonine-protein kinase, nemo-like kinase regulates a number of transcription factors with key roles in cell fate determination. It is a positive effector of the non-canonical Wnt signaling pathway, acting downstream of WNT5A, MAP3K7/TAK1 and HIPK2. Activation of this pathway causes binding to and phosphorylation of the histone methyltransferase SETDB1. The NLK-SETDB1 complex subsequently interacts with PPARG, leading to methylation of PPARG target promoters at histone H3K9 and transcriptional silencing. The resulting loss of PPARG target gene transcription inhibits adipogenesis and promotes osteoblastogenesis in mesenchymal stem cells (MSCs). Nemo-like kinase also is a negative regulator of the canonical Wnt/beta-catenin signaling pathway.

Form:PBS**Molecular Weight:**74.1 kDa**Sequences:**Val121-Glu 527**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.