MLKL Protein, Human (His-SUMO)

Cat. No.:	HY-P702574
Synonyms:	hMLKL; Mixed lineage kinase domain like
Species:	Human
Source:	E. coli
Accession:	Q8NB16 (M1-K471)
Gene ID:	197259
Molecular Weight:	Approximately 59 kDa

PROPERTIES

Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 μm filtered solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
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	MLKL, a pseudokinase, plays a pivotal role in TNF-induced necroptosis, a programmed cell death process characterized by plasma membrane damage and calcium influx. Despite lacking intrinsic protein kinase activity, MLKL is activated upon phosphorylation by RIPK3. This activation leads to homotrimerization, plasma membrane localization, and execution of necroptosis. Additionally, in response to orthomyxoviruses infection, MLKL can undergo nuclear necroptosis triggered by ZBP1 activation, resulting in disruption of the nuclear envelope and release of cellular DNA into the cytosol. MLKL's necroptotic function is facilitated by its binding to highly phosphorylated inositol phosphates, such as inositolhexakisphosphate (InsP6). This binding not only mediates the release of an N-terminal auto-inhibitory region but also requires RIPK3-dependent phosphorylation for full activation. Necrosulfonamide, a specific inhibitor of necroptosis, targets Cys-86 and effectively inhibits MLKL function.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA