Pellino-1 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P75970
Synonyms:	E3 ubiquitin-protein ligase pellino homolog 1; PELI1; PRISM
Species:	Human
Source:	Sf9 insect cells
Accession:	Q96FA3 (M1-D418)
Gene ID:	57162
Molecular Weight:	Approximately 74.1 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 7.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
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	Pellino-1, functioning as an E3 ubiquitin ligase, orchestrates the covalent attachment of ubiquitin moieties onto substrate proteins, particularly playing a crucial role in the Toll-like receptor (TLR) and interleukin-1 (IL-1) signaling pathways through its interaction with the complex containing IRAK kinases and TRAF6. Notably, Pellino-1 mediates 'Lys-63'-linked polyubiquitination of IRAK1, a pivotal step facilitating subsequent NF-kappa-B activation. Additionally, it exhibits a regulatory role in cell fate decisions, as it catalyzes 'Lys-48'-linked polyubiquitination of RIPK3, leading to its proteasome-dependent degradation, with a preference for the 'Thr-182' phosphorylated form of RIPK3. Intriguingly, Pellino-1 negatively modulates necroptosis by downregulating RIPK3 expression through its ubiquitin ligase activity. Furthermore, Pellino-1 extends its regulatory influence by mediating 'Lys-63'-linked ubiquitination of RIPK1, thereby contributing to the intricate modulation of cellular responses within these critical signaling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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