

**Pellino 1 Antibody**  
**Catalog # ASC11563****Specification****Pellino 1 Antibody - Product Information**

Application	WB, ICC, IF
Primary Accession	<a href="#">Q96FA3</a>
Other Accession	<a href="#">NP_065702</a> , <a href="#">11037063</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	46 kDa KDa
Application Notes	Pellino 1 antibody can be used for detection of Pellino 1 by Western blot at 1 - 2 µg/mL.

**Pellino 1 Antibody - Additional Information**

Gene ID	57162
Target/Specificity	
PELI1;	

**Reconstitution & Storage**

Pellino 1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

Pellino 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Pellino 1 Antibody - Protein Information**

**Name** PELI1

**Synonyms** PRISM

**Function**

E3 ubiquitin ligase catalyzing the covalent attachment of ubiquitin moieties onto substrate proteins. Involved in the TLR and IL- 1 signaling pathways via interaction with the complex containing IRAK kinases and TRAF6. Mediates 'Lys-63'-linked polyubiquitination of IRAK1 allowing subsequent NF-kappa-B activation (PubMed:<a href="http://www.uniprot.org/citations/12496252" target="\_blank">12496252</a>, PubMed:<a href="http://www.uniprot.org/citations/17675297" target="\_blank">17675297</a>). Mediates 'Lys-48'-linked polyubiquitination of RIPK3 leading to its subsequent proteasome-dependent degradation; preferentially recognizes and mediates the degradation of the 'Thr-182' phosphorylated form of RIPK3 (PubMed:<a href="http://www.uniprot.org/citations/29883609" target="\_blank">29883609</a>). Negatively regulates necroptosis by reducing RIPK3 expression (PubMed:<a href="http://www.uniprot.org/citations/29883609" target="\_blank">29883609</a>).

href="http://www.uniprot.org/citations/29883609" target="\_blank">29883609</a>). Mediates 'Lys-63'-linked ubiquitination of RIPK1 (PubMed:<a href="http://www.uniprot.org/citations/29883609" target="\_blank">29883609</a>).

#### Tissue Location

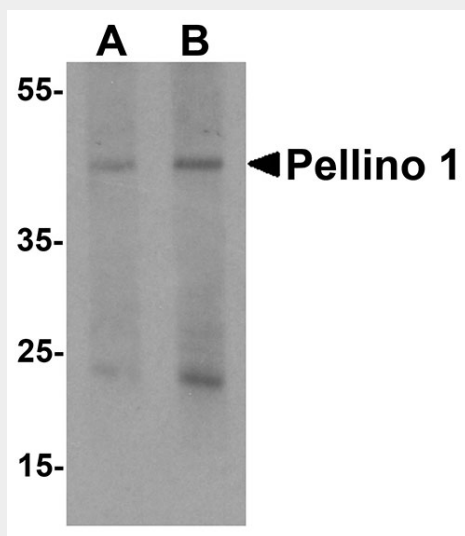
Expressed at high levels in normal skin but decreased in keratinocytes from toxic epidermal necrolysis (TEN) patients (at protein level).

#### Pellino 1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

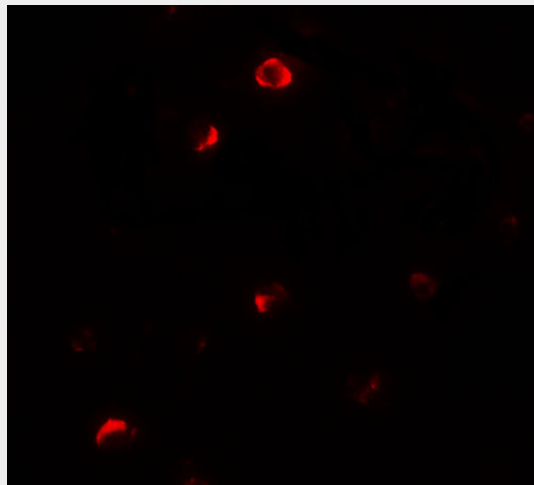
#### Pellino 1 Antibody - Images



Western blot analysis of Pellino 1 in human liver tissue lysate with Pellino 1 antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of Pellino in HepG2 cells with Pellino 1 antibody at 2.5 µg/ml.



Immunofluorescence of Pellino 1 in HepG2 cells with Pellino 1 antibody at 20 µg/ml.

### **Pellino 1 Antibody - Background**

**Pellino 1 Antibody:** The Pellino proteins are a highly homologous family of E3 ubiquitin ligases that act as upstream mediators in Toll-like receptor (TLR) pathways that lead to activation of MAP kinases and transcription factors. Pellino 1 is required for interleukin-1-mediated signaling through its interaction with the IRAK4-IRAK-TRAF6 complex, ultimately resulting in the activation of NF-κB. Like other members of the Pellino family, Pellino 1 is an E3 ubiquitin ligase, able to catalyze the polyubiquitination of IRAK1. It is activated via phosphorylation by either IRAK1 and IRAK4 or the IKK-related kinases IKK-ε and TBK1. In addition to phosphorylation, Pellino 1 activity is also modulated via ubiquitination and sumoylation.

### **Pellino 1 Antibody - References**

Moynagh PN. The Pellino family: IRAK E3 ligases with emerging roles in innate immune signaling. *Trends Immunol.* 2009; 30:33-42.  
Jiang Z, Johnson J, Nie H, et al. Pellino 1 is required for interleukin-1 (IL-1)-mediated signaling through its interaction with the IL-1 receptor-associated kinase 4 (IRAK4)-IRAK-tumor necrosis factor receptor-associated factor 6 (TRAF6) complex. *J. Biol. Chem.* 2003; 278:10952-6  
Butler MP, Hanly JA, and Moynagh PN. Kinase-active interleukin-1 receptor-associated kinases promote polyubiquitination and degradation of the Pellino family: direct evidence for Pellino

proteins being ubiquitin-protein isopeptide ligases. J. Biol. Chem. 2007; 282:29729-37.  
Goh ET, Arthur JS, Cheung PC, et al. Identification of the protein kinases that activate the E3  
ubiquitin ligase Pellino 1 in the innate immune system. Biochem. J. 2012; 441:339-46