

# Pellino 1 (Q-19): sc-31619

## BACKGROUND

Mammalian Pellino proteins 1-3 (pellino *Drosophila* homolog 1-3) are scaffolding components within Toll-like receptor (TLR) and Interleukin-1 (IL-1) receptor signaling cascades. Pellino 1 and 3 interact with complexes that also contain IL-1R-associated kinase 4 (IRAK4) and tumor necrosis factor receptor-associated factor 6 (TRAF6). Pellino 1, 2 and 3 interact with TAK1 (TGF $\beta$  activated kinase 1). Pellino 2 can initiate mitogen activated protein kinase pathways leading to activation of AP-1 and Elk-1. Pellino 3 promotes translocation of MAPK-activated protein kinase2 from the nucleus to the cytoplasm and activates transcription factor CREB in a p38 MAPK-dependent manner. Pellino 3 physically interacts with NF $\kappa$ B-inducing kinase (NIK) in an IL-1-dependent manner and leads to activation of c-Jun, Elk-1 and c-Jun N-terminal kinase.

## REFERENCES

- Rich, T., et al. 2000. Pellino-related sequences from *Caenorhabditis elegans* and *Homo sapiens*. Immunogenetics 52: 145-149.
- Resch, K., et al. 2001. Assignment of homologous genes, Peli1/PELI1 and Peli2/PELI2, for the Pelle adaptor protein Pellino to mouse chromosomes 11 and 14 and human chromosomes 2p13.3 and 14q21, respectively, by physical and radiation hybrid mapping. Cytogenet. Cell Genet. 92: 172-174.
- Yu, K.Y., et al. 2002. Cutting edge: mouse pellino-2 modulates IL-1 and lipopolysaccharide signaling. J. Immunol. 169: 4075-4078.
- Jiang, Z., et al. 2003. 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. 278: 10952-10956.
- Jensen, L.E., et al. 2003. Pellino2 activates the mitogen activated protein kinase pathway. FEBS Lett. 545: 199-202.
- Jensen, L.E., et al. 2003. Pellino3, a novel member of the Pellino protein family, promotes activation of c-Jun and Elk-1 and may act as a scaffolding protein. J. Immunol. 171: 1500-1506.

## CHROMOSOMAL LOCATION

Genetic locus: PELI1 (human) mapping to 2p14, PELI2 (human) mapping to 14q22.3; Peli1 (mouse) mapping to 11 A3.1, Peli2 (mouse) mapping to 14 C1.

## SOURCE

Pellino 1 (Q-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pellino 1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31619 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

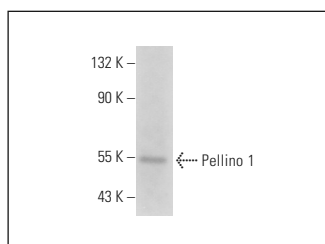
Pellino 1 (Q-19) is recommended for detection of Pellino 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-reactive with Pellino 3.

Pellino 1 (Q-19) is also recommended for detection of Pellino 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

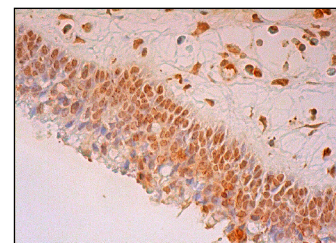
Molecular Weight of Pellino 1: 46 kDa.

Positive Controls: rat ovary extract: sc-2399.

## DATA



Pellino 1 (Q-19): sc-31619. Western blot analysis of Pellino 1 expression in rat ovary tissue extract.



Pellino 1 (Q-19): sc-31619. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear staining of respiratory epithelial cells.

## SELECT PRODUCT CITATIONS

- Wu, W., et al. 2014. Silencing of Pellino1 improves post-infarct cardiac dysfunction and attenuates left ventricular remodeling in mice. Cardiovasc. Res. 102: 46-55.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



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Try **Pellino 1/2 (F-7): sc-271065**, our highly recommended monoclonal alternative to Pellino 1 (Q-19). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Pellino 1/2 (F-7): sc-271065**.