

Pellino 1/2 (H-105): sc-67025

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 (IRAK-4) and tumor necrosis factor receptor-associated factor 6 (TRAF6). Pellino 1, 2 and 3 interact with Tak1 (TGF β 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 kinase 2 from the nucleus to the cytoplasm and activates transcription factor CREB in a p38 MAPK-dependent manner. Pellino 3 physically interacts with NF κ 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 (IRAK-4)-IRAK-tumor necrosis factor receptor-associated factor 6 (TRAF6) complex. *J. Biol. Chem.* 278: 10952-10956.
- Jensen, L.E., et al. 2003. Pellino 2 activates the mitogen activated protein kinase pathway. *FEBS Lett.* 545: 199-202.
- Jensen, L.E., et al. 2003. Pellino 3, 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.
- Butler, M.P., et al. 2005. Pellino 3 is a novel upstream regulator of p38 MAPK and activates CREB in a p38-dependent manner. *J. Biol. Chem.* 280: 27759-27768.

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 1/2 (H-105) is a rabbit polyclonal antibody raised against amino acids 151-255 mapping within an internal region of Pellino 1 of human origin.

PRODUCT

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

APPLICATIONS

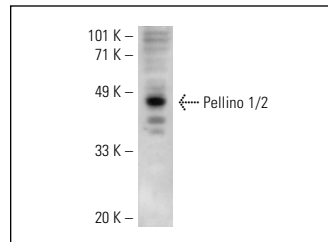
Pellino 1/2 (H-105) is recommended for detection of Pellino 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, 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-react with Pellino 3.

Pellino 1/2 (H-105) is also recommended for detection of Pellino 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

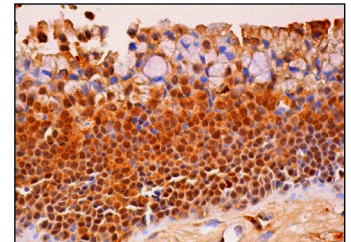
Molecular Weight of Pellino 1/2: 46 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HeLa whole cell lysate: sc-2200 or NAMALWA cell lysate: sc-2234.

DATA



Pellino 1/2 (H-105): sc-67025. Western blot analysis of Pellino 1/2 expression in HeLa whole cell lysate.



Pellino 1/2 (H-105): sc-67025. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Pellino 1/2 (F-7): sc-271065**, our highly recommended monoclonal alternative to Pellino 1/2 (H-105). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Pellino 1/2 (F-7): sc-271065**.