

# AAK1 (h): 293 Lysate: sc-158217

## BACKGROUND

Adaptor-related protein complex 2 (AP-2 complexes) operates during receptor-mediated endocytosis to initiate clathrin assembly, associates with membrane-bound receptors and mobilizes endocytic accessory factors. AAK1 (AP2 associated kinase 1), also known as adaptor-associated kinase 1, is a 961 amino acid protein belonging to the protein kinase superfamily and the serine/threonine protein kinase family. Encoded by a gene that maps to human chromosome 2p13.3, AAK1 participates in ATP and nucleotide binding, protein serine/threonine kinase functions and transferase activity. AAK1 phosphorylates a subunit of the AP-2 complex, which leads to binding of AP-2 to sorting signals in membrane-bound receptors, resulting in receptor endocytosis. AAK1 contains one protein kinase domain, with kinase activity stimulated by clathrin, and exists as two alternatively spliced isoforms.

## REFERENCES

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- Henderson, D.M. and Conner, S.D. 2007. A novel AAK1 splice variant functions at multiple steps of the endocytic pathway. *Mol. Biol. Cell* 18: 2698-2706.
- Baldwin, A., et al. 2008. Kinase requirements in human cells: II. Genetic interaction screens identify kinase requirements following HPV16 E7 expression in cancer cells. *Proc. Natl. Acad. Sci. USA* 105: 16478-16483.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

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

## CHROMOSOMAL LOCATION

Genetic locus: AAK1 (human) mapping to 2p13.3.

## PRODUCT

AAK1 (h): 293 Lysate represents a lysate of human AAK1 transfected 293 cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

AAK1 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive AAK1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

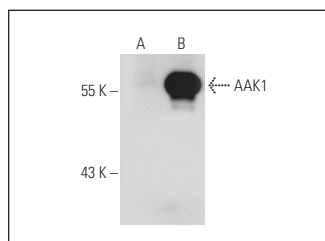
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

AAK1 (LW-M11): sc-134242 is recommended as a positive control antibody for Western Blot analysis of enhanced human AAK1 expression in AAK1 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



AAK1 (LW-M11): sc-134242. Western blot analysis of AAK1 expression in non-transfected: sc-110760 (A) and human AAK1 transfected: sc-158217 (B) 293 whole cell lysates.

## RESEARCH USE

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