

AAK1 Antibody

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	142	Rabbit	#Q2M2I8	22848

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

AAK1 Antibody recognizes endogenous levels of total AAK1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser7 of human AAK1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Adaptor-associated kinase 1 (AAK1) is a member of the Ark1/Prk1 family of serine/threonine kinases (1). AAK1 is enriched in synaptosomal preparations and modulates clathrin-dependent endocytosis, a process that is important in synaptic vesicle recycling and receptor-mediated endocytosis. AAK1, together with clathrin and clathrin-adaptor protein AP-2, forms a signaling complex at the cell membrane. AAK1-dependent phosphorylation of the µ-2 subunit of AP-2 enhances endocytosis efficiency (2,3). AAK1 is known to promote neuregulin/ErbB4 internalization to regulate neurotrophic signaling. Inhibition of AAK1 activity promotes cell surface expression of neuregulin/ErbB4, cell-bound neurotrophic factors that are implicated in brain development and synaptic plasticity (4).

This product detects a SARS-CoV-2-related target for research into the mechanisms of the novel coronavirus that caused the COVID-19 pandemic.

Background References

1. Conner, S.D. and Schmid, S.L. (2002) *J Cell Biol* 156, 921-9.
2. Flett, A. et al. (2005) *Biochem Soc Symp*, 65-70.
3. Ricotta, D. et al. (2002) *J Cell Biol* 156, 791-5.
4. Kuai, L. et al. (2011) *Chem Biol* 18, 891-906.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any

purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.