

Skp2 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: W, IF-IC	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 48	Source/Isotype: Rabbit	UniProt ID: #Q13309	Entrez-Gene Id: 6502
----------------------------------	----------------------------	-----------------------------------	------------------------	----------------------------------	-------------------------------	--------------------------------

Product Usage Information

Application

Western Blotting
Immunofluorescence (Immunocytochemistry)

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

This antibody detects endogenous levels of Skp2 protein (α, β, and γ isoforms). The antibody does not cross-react with other Skp proteins.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids at the amino terminus of human Skp2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Members of the F-box family of proteins are characterized by the approximate 40 amino acid F-box motif named after cyclin F (1,2). F-box proteins constitute one of the four subunits of the Skp1-Cullin-F-box (SCF) ubiquitin ligase complex. The substrate specificity of SCF complexes is determined by the interchangeable F-box proteins, which act as adaptors by associating with phosphorylated substrate proteins and recruiting them to the SCF core. F-box proteins contain two fundamental domains: the F-box motif mediates binding to Skp1 and a leucine rich repeat (LRR) domain mediates substrate interactions.

Skp2 (S phase kinase-associated protein 2) interacts with cyclin A/CDK2 and mediates proper G1 to S and G2 to M phase transitions by targeting the cyclin-dependent kinase (CDK) inhibitors p27, p21, p130 and the FOXO1 transcription factor for ubiquitylation and subsequent proteolysis (3,4,5,6). Skp2 protein expression is low in G0 and early G1 phase, increases during late G1 phase, and peaks during S and G2 phases. Inactivation of Skp2 results in S/G2-phase arrested cells with endoduplication and multiple centrosomes (4). Overexpression of Skp2 results in increased CDK activity and contributes to the deregulated proliferation and genetic instabilities typical of cancer cells (7). Increased Skp2/decreased p27 levels are associated with many aggressive lymphomas and human carcinomas such as colon, breast, prostate and lung cancers (7).

Background References

- Pagano, M. (2004) *Mol Cell* 14, 414-6.
- Reed, S.I. (2003) *Nat Rev Mol Cell Biol* 4, 855-64.
- Zhang, H. et al. (1995) *Cell* 82, 915-925.
- Nakayama, K. et al. (2004) *Dev. Cell* 6(5), 661-672.
- Bornstein, G. et al. (2003) *J. Biol. Chem.* 278(28), 25752-25757.
- Tedesco, D. et al. (2002) *Genes Dev.* 16(22), 2946-2957.
- Bloom, J. and Pagano, M. (2003) *Semin. Cancer Biol.* 13(1), 41-47.

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 BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
Alexa Fluor is a registered trademark of Life Technologies Corporation.

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.