

UBLE1A/SAE1 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, IP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit	UniProt ID: #Q9UBE0	Entrez-Gene Id: 10055
-------------------------------	----------------------------	-----------------------------------	------------------------	----------------------------------	-------------------------------	---------------------------------

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

UBLE1A/SAE1 Antibody recognizes endogenous levels of total UBLE1A/SAE1 protein. This antibody does not cross-react with NAE1 or UBE1 proteins.

Species predicted to react based on 100% sequence homology

Bovine, Dog, Pig

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys195 of human UBLE1A/SAE1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The process of SUMO conjugation to target proteins is similar to the molecular chain of events observed with ubiquitin (1). SUMO is conjugated to target proteins through the coordinated action of the cellular SUMO conjugation machinery, which consists of the E1, E2, and E3 enzymes (2). The canonical SUMO E1 activating enzyme is a heterodimer consisting of Ubiquitin-like 1-activating enzyme E1A (UBLE1A, SAE1) and UBLE1B (SAE2, UBA2) subunits. Mature SUMO is activated by E1 in an ATP-dependent reaction that generates adenylated SUMO, which functions as a high-energy intermediate in the formation of a thioester linkage between SUMO and Cys173 of SAE2 (3,4). SUMO is subsequently transferred from SAE2 to the SUMO E2 conjugating enzyme UBE2I (5). Research studies indicate that UBLE1A (SAE1) is a nuclear protein and c-Myc transcriptional target whose expression is required for Myc-driven tumorigenesis (6-8).

Background References

1. Geiss-Friedlander, R. and Melchior, F. (2007) *Nat Rev Mol Cell Biol* 8, 947-56.
2. Tatham, M.H. et al. (2003) *Biochemistry* 42, 9959-69.
3. Desterro, J.M. et al. (1999) *J Biol Chem* 274, 10618-24.
4. Gong, L. et al. (1999) *FEBS Lett* 448, 185-9.
5. Desterro, J.M. et al. (1997) *FEBS Lett* 417, 297-300.
6. Moutty, M.C. et al. (2011) *Mol Biol Cell* 22, 652-60.
7. Amente, S. et al. (2012) *Am J Cancer Res* 2, 330-4.
8. Kessler, J.D. et al. (2012) *Science* 335, 348-53.

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 **Mk:** Monkey

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.