



Qty: 100µg/400 µL

Rabbit anti-Cdc4

Catalog No. 40-1500

Lot No. See product label

Rabbit anti-Cdc4

FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.432

IMMUNOGEN

Synthetic peptide derived from an internal region of the human and mouse Cdc4 (archipelago (AGO), F-box/WD-repeat protein 7, F-box and WD-40 domain protein 7, F-box protein FBW7, FBX30 and SEL-10).

SPECIFICITY

This antibody reacts with the human Cdc4 protein. Based on 100% amino acid identity, reactivity with mouse is expected. On Western blots, it identifies the target bands at ~60-80 kDa. Multiple bands may represent various isoforms.

REACTIVITY

Reactivity has been confirmed with human T47D, U2-OS, MCF-7, HepG2 and HeLa cell lysates.

Sample	WesternBlotting	Immunoprecipitation
Human	+++	+++
Mouse	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-3 µg/mL

Immunoprecipitation: 7 µg/reaction

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

For Research Use Only. CAUTION: Not for human or animal therapeutic or diagnostic use.

www.invitrogen.com

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

PI401500

(Rev 10/10) DCC-10-2322

Important Licensing Information - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, www.invitrogen.com). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BACKGROUND

The F-box protein family is characterized by an approximately 40 amino acid motif, the F-box.^{1,2} F-box proteins are divided into 3 classes: FBWs containing WD-40 domains, FBLs containing leucine-rich repeats, and FBXs containing either different protein-protein interaction modules or no recognizable motifs.¹ They constitute one of the four subunits of ubiquitin protein ligase complex called SCFs (SKP1-cullin-F-box), which function in phosphorylation-dependent ubiquitination.¹

Cdc4 is one member of this family, which is also known as AGO, FBW7, FBX30 or SEL10. CDC4 binds directly to cyclin E and targets cyclin E for ubiquitin-mediated degradation.^{3,4} Cdc4 proteins of amino acid lengths varying from 553 aa to 707 aa in length have been reported. Cdc4 is an inhibitor of Notch signaling that targets Notch for ubiquitin-mediated degradation after a nuclear phosphorylation event.^{5,6} Cdc4 interacts with presenilin 1, facilitates its ubiquitination, and alters A-beta peptide production.⁷ Thus, it may be important for Alzheimer's disease. Mutations of the *CDC4* gene are detected in ovarian and breast cancer cell lines^{4,8,9}, and the *CDC4* gene may also be involved in the pathogenesis of human pancreatic⁸ and endometrial cancers¹⁰.

REFERENCES

1. Cenciarelli C, et al. *Curr Biol* 9:1177-1179, 1999.
2. Winston JT, et al. *Curr Biol* 9:1180-1182, 1999.
3. Koepp DM, et al. *Science* 294:173-177, 2001.
4. Moberg KH, et al. *Nature* 413:311-316, 2001.
5. Gupta-Rossi N, et al. *J Biol Chem* 276:34371-34378, 2001.
6. Wu G, et al. *Mol Cell Biol* 21:7403-7415, 2001.
7. Li J, et al. *J Neurochem* 82:1540-1548, 2002.
8. Calhoun ES, et al. *Am J Pathol* 163: 1255-60, 2003.
9. Strohmaier H, et al. *Nature* 413:316-322, 2001.
10. Spruck CH, et al. *Cancer Res* 62:4535-4539, 2002.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

Zymed® and ZyMAX™ are trademarks of Invitrogen. Cy® and Sepharose® are trademarks of Amersham Biosciences Ltd.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		