



Qty: 100 µg/200 µl

Ms anti-Cks1

(Clone: 4G12G7)

For Research Use Only

Catalog No. 37-0200

Lot No.

## Mouse anti-Cks1

### FORM

This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

**CLONE:** 4G12G7

**ISOTYPE:** Mouse IgG<sub>1</sub>-kappa

### IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the human Cks1 protein.

### SPECIFICITY

This antibody is specific for the ~11 kDa Cks1 protein. No reactivity was observed with a Cks2 recombinant protein. Cross reactivity with an unknown protein at ~35 kDa has been observed in Western blots of HeLa cell lysates.

### REACTIVITY

Reactivity has been confirmed with a Cks1 recombinant protein as well as HeLa cell lysates. IHC reactivity was confirmed with formalin-fixed, paraffin-embedded (FFPE) human tonsil sections.

Sample	ELISA	Immunohistochemistry (FFPE tissues)	Western Blotting
Human	ND	++	++
Immunogen	+++	N/A	N/A

(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

**Immunohistochemistry:** 50 µg/ml

\*Immunohistochemistry applications with formalin-fixed, paraffin-embedded tissue sections require heat induced epitope retrieval (HIER) with citrate buffer, pH 6.0 (Zymed Cat. No. 00-5000) prior to staining protocols.

### 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)

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PI370200

(Rev 10/08) DCC-08-1089

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**BACKGROUND**

Cks (Cdc kinase subunit ) proteins are members of the cyclin-dependent kinase (cdk) family that act as adaptors to allow the cdk's to interact more efficiently with their molecular targets. Cks1 is involved in the regulation of cell cycle mitosis in normal and cancer cells. Cks1 promotes mitosis by modulating the transcriptional activation of the APC/C protein-ubiquitin ligase activator Cdc20.<sup>1</sup> Cks1 has also been established as an essential cofactor in the ubiquitylation of Cdk inhibitor p27 by Skp2 ubiquitin ligase. Mammalian Cks1 binds to Skp2 and promotes the association of Skp2 with phosphorylated p27 (Thr187), which further induces ubiquitylation of p27.<sup>2</sup> High expression of Cks1 may be involved in the pathogenesis of human non-small cell lung carcinoma.<sup>3</sup>

**REFERENCES**

1. Morris MC, et al. *Nature* 424(6943): 1009-13, 2003.
2. Ganoth D, et al. *Nat Cell Biol* 3(3): 321-4, 2001.
3. Inui N, et al. *Biochem Biophys Res Commun* 303(3):978-84, 2003.

**RELATED PRODUCTS**

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Mouse anti-Cks2	1F7G5	37-0300
Mouse anti-Skp2 (p45)	SKP2-8D9	32-3300
Mouse anti-Skp2 (p45)	SKP2-2B12	32-3400
Rabbit anti-Skp2 (p45)	GP45	51-1900
Mouse anti-p27	57	18-2370
Mouse anti-p27	p27-11D11	32-2800
Rabbit anti-p27	FP1	71-9600
Rabbit anti-phospho-p27 (Thr187)	PT-187	71-7700
Rabbit anti-phospho-p27 (Ser10)	ZMD.212	34-6300
Mouse anti-p21	EA10	33-7000
Mouse anti-Cyclin A	E23	33-4900
Mouse anti-Cyclin D1	AM29	33-3500
Mouse anti-Cyclin E	HE172	32-1500
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

\*PAD: Polyclonal Antibody Designation

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

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