



**Qty:** 100 µg/200 µl

**Mouse anti-CUL-1**

**Catalog No.** 32-2400

**Lot No.**

## Mouse anti-CUL-1

### 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:** 2H4C9

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

### IMMUNOGEN

A synthetic peptide corresponding to an 11 amino acid sequence at the C-terminus of the human CUL-1 protein.

### SPECIFICITY

This antibody reacts specifically with the ~ 86 kDa CUL-1 protein and does not cross-react with the related CUL-2 protein.

### REACTIVITY

This antibody is confirmed to be reactive with human. Reactivity is confirmed from extracts of IMR90 (human fibroblasts) and Wi-38 cells. Reactivity with other species has not been determined.

Sample	Immuno-precipitation (native)	ELISA	Western Blotting
Human	+++	NT	+++
Immunogen	NT	+++	NT

(Excellent +++, Good++, Poor +, No reactivity 0, Not Tested NT)

### 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.

**ELISA:** 0.1 –1.0 µg/ml

**Western Blotting:** 1-3 µg/ml

**Immunoprecipitation:** 5-10 µg/ IP 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)

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PI322400

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## BACKGROUND

In yeast, proteolysis of G1 cell cycle regulatory proteins is controlled by a ubiquitin ligase formed by three subunits: Cdc53 (also known as CulA), Skp1 and one of many F-box proteins (reviewed in ref 2). A *C. elegans* family of cullin genes homologous to the *S. cerevisiae cdc53* gene has been identified (*cul1*, 2, 3, 4, and 5)<sup>(2)</sup>. The *C. elegans cul1* null mutant shows a shortened G1 phase and a generalized hyperplasia, suggesting that Cul1 may be involved in the degradation of positive cell cycle regulators (e.g., G1 cyclins as in *S. cerevisiae*). These findings suggest that during evolution the *cdc53* gene diverged into at least five different genes, of which some may have specialized in the ubiquitination of specific proteins (e.g., cyclins) and others in the ubiquitination of other proteins (e.g., Cdk-inhibitors). A family of 6 human cullin genes (*cul1*, 2, 3, 4a, 4b, and 5) has also been identified<sup>(1)</sup>. It was then shown that Cul1 forms a complex with human Skp1 and the F box protein Skp2. This complex is thought to play a role in the ubiquitination of G1 regulatory proteins as its homolog does in yeast.

## REFERENCES

1. Kipreos, E.T., et al; *Cell* 85:829-839 (1996).
2. Pagano, M., *FASEB J.* 11:1067-1075 (1997).

## RELATED PRODUCTS

<b>Product</b>	<b>Clone/PAD*</b>	<b>Cat. No.</b>
Mouse Anti-UBIQUITIN	Ubi(MAB1510)	08-0147
Mouse Anti-UBIQUITIN	Ubi-1	13-1600
Mouse Anti-Proteasome Subunit	21D11	32-1100
Mouse Anti-UBC3	2E3B5	32-2000
Mouse Anti-SKP2 (p45)	SKP2-8D9	32-3300
Mouse Anti-SKP2 (p45)	SKP2-2B12	32-3400
Mouse Anti-SUMO-1	21C7	33-2400
Rabbit Anti-SKP2 (p45)	Poly - GP45	51-1900
Rabbit Anti-Fbx7	M8F	51-8000
Rabbit Anti-Sumo-3 (Sentrin-2)	NRD.1	51-9100
Rabbit Anti-FBL3	VL4	51-6500
Rabbit Anti-Fbw1a (Joe-x)	MA14	52-3007
Rabbit Anti-Fbw1b (Joe homolog)	MB12	52-3107
Rabbit Anti-Fbx4 (Joe 1)	MC9	52-3207
Rabbit Anti-Fbx5 (Joe 5)	MD4	52-3307
Rabbit Anti-Fbx6 (Joe 3)	MO3	52-3407
Rabbit Anti-UNP	Poly - CSM-11	71-8900
Rabbit Anti-UBC3	Poly - HC34	71-9900
Rabbit Anti-E4A	ZOA.02	52-3877
Rabbit Anti-NEDD8	Z32.HJ	34-1400
Rabbit Anti-ROC1	ZMD.07	34-2500
Rabbit Anti-APC2	ZMD.11	34-2900
Rabbit Anti-APC11	ZMD.08	34-2600
Rabbit Anti-CDC34	ZMD.09	34-2700
Rabbit Anti-Cul-2	Poly-CT2	51-1800
Rabbit Anti-Cul-1	Poly-ZL18	71-8700
Rabbit Anti-hCul3N	ZMD.04	34-2200
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

\*PAD: Polyclonal Antibody Designation

<b>Conjugate</b>	<b>ZyMAX™ Goat x Rabbit IgG (H+L)</b>	<b>ZyMAX™ Goat x Mouse IgG (H+L)</b>
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

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