



Qty: 100µg/400 µL

Rabbit anti-Hakai

For Research Use Only

Catalog No. 36-2800

Lot No.

Rabbit anti-Hakai

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.288

IMMUNOGEN

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

SPECIFICITY

This antibody reacts with the canine Hakai protein. On Western blots, it identifies a single band at ~70 kDa, as well as a band at ~75-80 kDa that likely represents the ubiquitinated form of the Hakai protein.

REACTIVITY

Reactivity has been confirmed with MDCK cell lysates. Based on amino acid sequence homology, cross-reactivity with human and mouse is expected.

Sample	Western Blotting	ELISA	Immuno-precipitation
Canine	+++	ND	0
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.

ELISA: 0.1-1µg/mL
Western Blotting: 1-3 µg/mL

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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PI362800

(Rev 10/08) DCC-08-1089

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BACKGROUND

Hakai was recently characterized as an E3 ubiquitin ligase related to the molecule c-Cbl¹. c-Cbl is responsible for ubiquitinating the epithelial growth factor receptor (EGFR) and pro cadherins. Hakai is a novel E-cadherin binding protein, an E3 ligase which mediates ubiquitination of the E-cadherin complex in a tyrosine phosphorylation dependent manner¹. Hakai interacts with E-cadherin, but not with other cadherins such as N-cadherin or OB-cadherin. It has been reported to contain SH2, RING, zinc-finger and proline rich domains.

There are indications that Hakai functions in the generation of cell motility under physiological conditions: first, over expression of Hakai in epithelial cells was found to perturb cell-cell adhesions and enhance HGF-induced cell scattering and endocytosis of E-cadherin¹. Second, a mutant form of E-cadherin that lacks the Hakai-interacting tyrosine residues was found not to efficiently endocytose¹.

The predicted amino acid sequence of Hakai is believed to contain a C3HC4-type Ring-finger domain at its N-terminus, which has been found in many E3 ubiquitin ligases¹. By promoting the endocytosis and dynamic recycling or destruction of E-cadherin complexes, Hakai may control epithelial-mesenchymal transitions under physiological and pathological conditions².

REFERENCES

1. Fugita, Y et al. *Nat Cell Biol* 4:222-231, 2002.
2. Pece, S and Gutkind, JS. *Nat Cell Biol* 4:E72-E74, 2002.

RELATED PRODUCTS

Product	Clone/PAD*	Cat. No.
Mouse anti-E-Cadherin	HECD-1	13-1700
Mouse anti-E-Cadherin	4A2C7	33-4000
Mouse anti-E-Cadherin	SHE78-7	13-5700
Rat anti-E-Cadherin	ECCD-2	13-1900
Rat anti-E-Cadherin	ECCD-1	13-1800
Mouse anti-Ubiquitin	Ubi-1	13-1600
Rabbit anti-APC2	ZMD.11	34-2900
Rabbit anti-APC11	ZMD.08	34-2600
Rabbit anti-CUL-1	ZL18	71-8700
Rabbit anti-CUL-2	CT2	51-1800
Rabbit anti-CUL-3	ZMD.04	34-2200
Rabbit anti-Fbl3a	VL4	51-6500
Rabbit anti-Fbx7	M8F	51-8000
Rabbit anti-Fizzy	ZMD.01	34-1900
Mouse anti-Skp1 (p19)	1C10F4	32-3800
Mouse anti-Skp2	SKP2-8D9	32-3300
Rabbit anti-Skp2	GP45	51-1900
Rabbit anti-ROC1C	ZMD.07	34-2500
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

*PAD: Polyclonal Antibody Designation

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

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