Qty: 100 µg/400 µl

Rabbit anti-FZR

Catalog No. 34-2000

Lot No. **See product label**

Rabbit anti-FZR

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. The antibody is epitope-affinity-purified from rabbit antiserum.

PAD: ZMD.02

IMMUNOGEN
Synthetic peptide derived from the C-terminus of human FZR protein.

SPECIFICITY
This antibody reacts specifically with the 55kDa human FZR protein. Based on amino acid sequence homology, there may be some cross reactivity with mouse, xenopus, and drosophila FZR protein.

REACTIVITY
Reactivity is confirmed with HeLa and NIH-3T3 cell lysates.

Sample	Western Blotting	Immuno-precipitation (native)
Human	++	NT
Mouse	++	NT
In Vitro Trans-lated Protein	++	++

(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.

Immunoprecipitation: 10 µg/IP reaction
Western Blotting: 1-5 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)

BACKGROUND

The Fizzy-related (fzr) protein is a recently identified 7WD domain family member implicated in cell cycle regulation of Drosophila and yeast. It has been shown that the overexpression of fzr proteins increases natural killer cell-mediated cell death and as a result, suppresses tumor growth. The fzr protein is essential for cyclosome activity. The cyclosome pathway of ubiquitin-mediated proteolysis plays an essential role in cell cycle control. The multisubunit cyclosome is regulated by transient interactions with fzy and fzr genes. Both fzy and fzr are transcribed in a cell cycle specific but distinct manner. Fzy transcription starts after the restriction point in late G1 and ceases upon cell division. Fzr transcription also ceases upon cell division but resumes in mid G1, before the restriction point, and takes place also in G0. In early embryonic cell cycles, the primary event in the activation of the cyclosome is its cdk1-dependent phosphorylation and activation by fzy. Phosphorylation of fzy/cdc20 may play a role in keeping the cyclosome inactive in early mitosis and under conditions of mitotic checkpoint arrest. Fzr, a conserved eukaryotic gene, negatively regulates the levels of cyclins A, B, and B3. These mitotic cyclins, which bind and activate cdk1 (cdc2), are rapidly degraded during exit from M and during G1 phases. Fzr is required for cyclin removal during G1 when the embryonic epidermal cell proliferation stops, and during G2, preceding salivary gland endoreduplication. Loss of fzr causes progression through an extra division cycle in the epidermis and inhibition of endoreduplication in the salivary gland, in addition to lack of cyclin removal.

REFERENCES

1. Yudkovsky Y, et. al, *Biochem Biophys Res Commun*, 271(2): 299-304 (2000)
2. Inbal N, et. al, *FEBS Lett*, 463(3): 350-354 (1999)
3. Shteinberg M, et. al, *Biochem Biophys Res Commun*, 260(1): 193-198 (1999)
4. Stephan J. Sigrist and Christian F. Lehner, *Cell* 90: 671-681 (1997)
5. Sigrist S, et. al, *EMBO J* 14(19): 4827-4838 (1995)
6. Dawson IA, et. al, *J Cell Biol* 129(3): 725-737 (1995)

RELATED PRODUCTS

Product	***Clone/PAD****	***Cat. No.***
Mouse anti-Ubiquitin	Ubi-1	13-1600
Mouse anti-Proteosome Subunit	21D11	32-1100
Mouse anti-UBC3	2E3B5	32-2000
Mouse anti-SUMO-1	21C7	33-2400
Rabbit anti-SUMO-3	NRD.1	51-9100
Rabbit anti-Fbx7	M8F	51-8000
Rabbit anti-Fbl3a	VL4	51-6500
PolyFast ™ Rabbit anti-Fbw1a+Peptide	MA14	52-3007
PolyFast ™ Rabbit anti-Fbw1b+Peptide	MB12	52-3107
PolyFast ™ Rabbit anti-Fbx4+Peptide	MC9	52-3207
PolyFast ™ Rabbit anti-Fbx5+Peptide	MD4	52-3307
PolyFast ™ Rabbit anti-Fbx6+Peptide	MO3	52-3407
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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