SANTA CRUZ BIOTECHNOLOGY, INC.

Mig-6 (H-125): sc-66966

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mitogen-inducible gene 6 protein (Mig-6), also designated Gene 33 or RALT, belongs to the Mig-6 family. The gene encoding for Mig-6 maps to chromosome 1p36.12-p36.33. Mig-6 is a cytoplasmic protein acting as a feedback inhibitor of ErbB-2 mitogenic function and can suppress ErbB-2 oncogenic activity. The expression of Mig-6 is upregulated with cell growth. Mig-6 binds to the epidermal growth factor receptor (EGFR) upon EGF stimulation and is considered a negative feedback regulator of EGFR and a potential tumor suppressor. Mig-6 induces transcriptional activation of NFκB by binding to its inhibitor IκB-α. It enables the cell to respond persistently to chronic stress. Mig-6 mRNA levels increase in response to stress such as diabetic nephropathy, vasoactive peptides or mechanical strain. Mig-6 is expressed in liver, placenta and lung.

REFERENCES

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2. Makkinje, A., Quinn, D.A., Chen, A., Cadilla, C.L., Force, T., Bonventre, J.V. and Kyriakis, J.M. 2000. Gene 33/Mig-6, a transcriptionally inducible adapter protein that binds GTP-Cdc42 and activates SAPK/JNK. A potential marker transcript for chronic pathologic conditions, such as diabetic nephropathy. Possible role in the response to persistent stress. J. Biol. Chem. 275: 17838-17847.
3. Fiorentino, L., Pertica, C., Fiorini, M., Talora, C., Crescenzi, M., Castellani, L., Alema, S., Benedetti, P. and Segatto, O. 2000. Inhibition of ErbB-2 mitogenic and transforming activity by RALT, a mitogen-induced signal transducer which binds to the ErbB-2 kinase domain. Mol. Cell. Biol. 20: 7735-7750.
4. Hackel, P.O., Gishizky, M. and Ullrich, A. 2001. Mig-6 is a negative regulator of the epidermal growth factor receptor signal. Biol. Chem. 382: 1649-1662.
5. Tsunoda, T., Inokuchi, J., Baba, I., Okumura, K., Naito, S., Sasazuki, T. and Shirasawa, S. 2002. A novel mechanism of NFκB activation through the binding between inhibitor of NFκBα and the processed NH_2-terminal region of Mig-6. Cancer Res. 62: 5668-5671.
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CHROMOSOMAL LOCATION

Genetic locus: ERRFI1 (human) mapping to 1p36.23; Errfi1 (mouse) mapping to 4 E2.

SOURCE

Mig-6 (H-125) is a rabbit polyclonal antibody raised against amino acids 156-280 mapping within an internal region of Mig-6 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Mig-6 (H-125) is recommended for detection of Mig-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Mig-6 (H-125) is also recommended for detection of Mig-6 in additional species, including canine.

Suitable for use as control antibody for Mig-6 siRNA (h): sc-45704, Mig-6 siRNA (m): sc-45705, Mig-6 shRNA Plasmid (h): sc-45704-SH, Mig-6 shRNA Plasmid (m): sc-45705-SH, Mig-6 shRNA (h) Lentiviral Particles: sc-45704-V and Mig-6 shRNA (m) Lentiviral Particles: sc-45705-V.

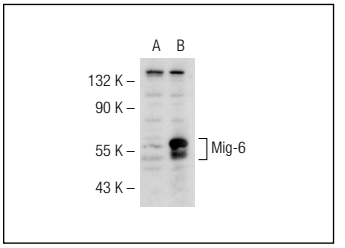
Molecular Weight of Mig-6: 53 kDa.

Positive Controls: Mig-6 (m): 293T Lysate: sc-125619, HL-60 whole cell lysate: sc-2209 or A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Mig-6 (H-125): sc-66966. Western blot analysis of Mig-6 expression in non-transfected: sc-117752 (**A**) and mouse Mig-6 transfected: sc-125619 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.