

Mig-6 (D-4): sc-390905

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 1p36.23. 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 NF κ B by binding to its inhibitor I κ B 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

- Wick, M., et al. 1995. Identification of a novel mitogen-inducible gene (Mig-6): regulation during G₁ progression and differentiation. *Exp. Cell Res.* 219: 527-535.
- Makkinje, A., et al. 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.
- Fiorrentino, L., et al. 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.
- Hackel, P.O., et al. 2001. Mig-6 is a negative regulator of the epidermal growth factor receptor signal. *Biol. Chem.* 382: 1649-1662.

CHROMOSOMAL LOCATION

Genetic locus: ERRF1 (human) mapping to 1p36.23; Errf1 (mouse) mapping to 4 E2.

SOURCE

Mig-6 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 227-253 within an internal region of Mig-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390905 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Mig-6 (D-4) is recommended for detection of Mig-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 (D-4) is also recommended for detection of Mig-6 in additional species, including canine and bovine.

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.

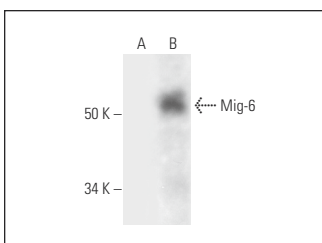
Molecular Weight of Mig-6: 53 kDa.

Positive Controls: Mig-6 (m): 293T Lysate: sc-125619.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Mig-6 (D-4): sc-390905. 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.

RESEARCH USE

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



See **Mig-6 (D-1): sc-137154** for Mig-6 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.