

Nischarin (D6T4X) Rabbit mAb

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|---------------------------|---------------------------|-----------------------------------|-------------------------|--------------------------------------|-------------------------------|---------------------------------|
| Applications: W | Reactivity: H M | Sensitivity: Endogenous | MW (kDa): 200 | Source/Isotype: Rabbit IgG | UniProt ID: #Q9Y2I1 | Entrez-Gene Id: 11188 |
|---------------------------|---------------------------|-----------------------------------|-------------------------|--------------------------------------|-------------------------------|---------------------------------|

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Specificity/Sensitivity

Nischarin (D6T4X) Rabbit mAb recognizes endogenous levels of total nischarin protein. The antibody detects a 60 kDa background band of unknown identity by western blot.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human nischarin protein.

Background

Nischarin (also known as imidazoline receptor antisera-selected protein, IRAS) was first identified through its association with the cytoplasmic domain of integrin $\alpha 5$, and shown to regulate cell migration and cytoskeletal organization (1). Nischarin regulates Rac-1 signaling (2), as well as the p21-activated kinase (PAK) (3) and cofilin/LIMK pathways (4). Nischarin also interacts with LKB1, regulating the migration and metastatic behavior of breast epithelial cells (5). In addition, nischarin regulates neuronal migration in rat brain (6). Research studies have implicated nischarin in the regulation of invasion and metastasis of breast cancer (7,8). Researchers have shown that nischarin is frequently downregulated in ovarian cancer, and regulates invasion through focal adhesion kinase (FAK) signaling (9).

Background References

1. Alahari, S.K. et al. (2000) *J Cell Biol* 151, 1141-54.
2. Reddig, P.J. et al. (2005) *J Biol Chem* 280, 30994-1002.
3. Alahari, S.K. et al. (2004) *EMBO J* 23, 2777-88.
4. Ding, Y. et al. (2008) *Mol Cell Biol* 28, 3742-56.
5. Jain, P. et al. (2013) *J Biol Chem* 288, 15495-509.
6. Ding, Y. et al. (2013) *PLoS One* 8, e54563.
7. Chen, J. et al. (2015) *Mol Med Rep* 12, 77-82.
8. Baranwal, S. et al. (2011) *J Natl Cancer Inst* 103, 1513-28.
9. Li, J. et al. (2015) *Mol Cancer Ther* 14, 1202-12.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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