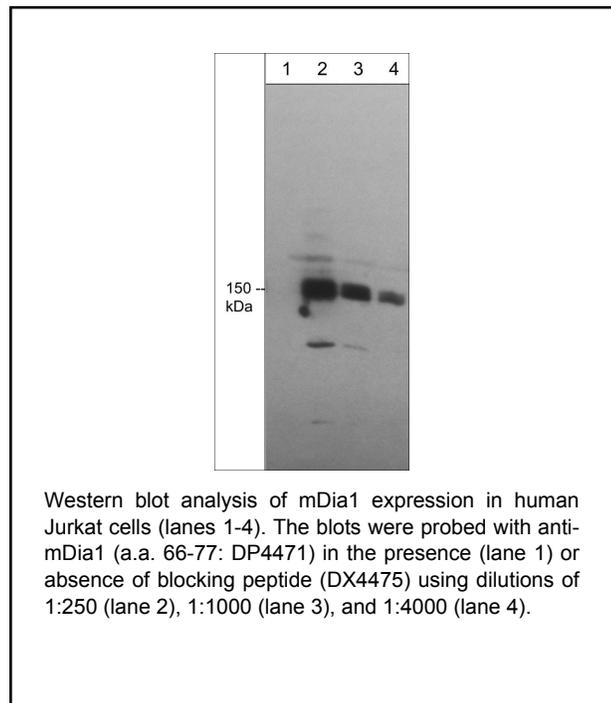


Background

Formins include several families of proteins that regulate actin cytoskeletal dynamics via two conserved formin homology domains, FH1 and FH2. Through cooperation of FH1 and FH2, formins construct actin-based structures comprising linear, unbranched filaments that are used in stress fibers, actin cables, microspikes, and contractile rings. A subgroup of the formins is the diaphanous (Dia) family, which includes mDia1 (Diap1), mDia2 (Diap3), and mDia3 (Diap2). The mDia1 protein is activated by Rho and leads to ROCK-dependent stress fiber formation. Rho-activated mDia1 regulates serum response factor-dependent transcription. In cancers, mDia1 has been implicated in ras-mediated transformation, metastasis, and invasion. Thus, mDia1 is a Rho-activated formin with both cytoskeletal- and transcription-regulating activities.

Background References

- Watanabe, N. et al. (1999) Nat Cell Biol. 1:136-143.
Ishizaki, T. et al. (2001) Nat Cell Biol. 3:8-14.
Narumiya, S. et al. (2009) Cancer Metastasis Rev. 28:65.



Applications

- Blocking 1:1000
ELISA 50 ng/well

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Specificity

The peptide is specifically recognized by anti-mDia1 (a.a. 66-77) antibody (DP4471) in ELISA, and has been shown to block the reactivity of DP4471 during Western blot. In addition, the peptide is recommended for use in blocking DP4471 reactivity in immunocytochemistry.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Peptide Sequence

mDia1 synthetic peptide corresponding to amino acids 66-77 in the N-terminal region of human mDia1 (Diap1). This peptide sequence is highly conserved in rat and mouse mDia1, and has low homology to other formins.

Buffer and Storage

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.
Store at -20°C. Stable for 1 year.

Related Products

- DK6630 mDia Phospho-Regulation Antibody Sampler Kit
DP4471 mDia1 (a.a. 66-77) Rabbit Polyclonal
DP3491 mDia2 (C-terminal region) Rabbit Polyclonal
DP4481 mDia2 (Thr-1061), phospho-specific Rabbit Polyclonal
DP4511 mDia3 (C-terminus) Rabbit Polyclonal

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