

DET1 (H-300): sc-135129

BACKGROUND

DET1 (de-etiolated homolog 1), is a 550 amino acid highly conserved nuclear protein that is expressed in the ovary, some lymphoid organs and resting leukocytes. DET1 is a component of the E3 ubiquitin ligase Doublecortin DET1-COP1 complex, which is required for ubiquitination and degradation of proto-oncogenic transcription factor c-Jun. DET1 enhances the activity of several members of the UBC (Ub-conjugating enzyme) family and modulates CUL-4A functions. DET1 is involved in multiple plant developmental processes and acts as an essential negative regulator of photomorphogenesis.

REFERENCES

1. Pepper, A., et al. 1994. DET1, a negative regulator of light-mediated development and gene expression in *Arabidopsis*, encodes a novel nuclear-localized protein. *Cell* 78: 109-116.
2. Benvenuto, G., et al. 2002. The photomorphogenesis regulator DET1 binds the amino-terminal tail of Histone H2B in a nucleosome context. *Curr. Biol.* 12: 1529-1534.
3. Davuluri, G.R., et al. 2004. Manipulation of DET1 expression in tomato results in photomorphogenic phenotypes caused by posttranscriptional gene silencing. *Plant J.* 40: 344-354.
4. Wertz, I.E., et al. 2004. Human de-etiolated-1 regulates c-Jun by assembling a CUL-4A ubiquitin ligase. *Science* 303: 1371-1374.
5. Al Khateeb, W.M., et al. 2007. DDB2, DDB1A and DET1 exhibit complex interactions during *Arabidopsis* development. *Genetics* 176: 231-242.
6. Pick, E., et al. 2007. Mammalian DET1 regulates CUL-4A activity and forms stable complexes with E2 ubiquitin-conjugating enzymes. *Mol. Cell. Biol.* 27: 4708-4719.
7. Anzi, S., et al. 2008. Transcriptional repression of c-Jun's E3 ubiquitin ligases contributes to c-Jun induction by UV. *Cell. Signal.* 20: 862-871.

CHROMOSOMAL LOCATION

Genetic locus: DET1 (human) mapping to 15q25.3; Det1 (mouse) mapping to 7 D3.

SOURCE

DET1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of DET1 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.

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.

APPLICATIONS

DET1 (H-300) is recommended for detection of DET1 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). DET1 (H-300) is also recommended for detection of DET1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DET1 siRNA (h): sc-89981, DET1 siRNA (m): sc-143015, DET1 shRNA Plasmid (h): sc-89981-SH, DET1 shRNA Plasmid (m): sc-143015-SH, DET1 shRNA (h) Lentiviral Particles: sc-89981-V and DET1 shRNA (m) Lentiviral Particles: sc-143015-V.

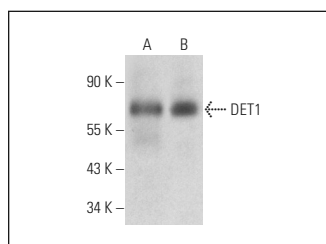
Molecular Weight of DET1: 64 kDa.

Positive Controls: human spleen extract: sc-363779 or mouse spleen extract: sc-2391.

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



DET1 (H-300): sc-135129. Western blot analysis of DET1 expression in human spleen (A) and mouse spleen (B) tissue extracts.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **DET1 (F-2): sc-514348**, our highly recommended monoclonal alternative to DET1 (H-300).