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#5416

DDB-2 (D4C4) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 43	Source/Isotype: Rabbit IgG	UniProt ID: #Q92466	Entrez-Gene Id: 1643
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DDB-2 (D4C4) Rabbit mAb recognizes endogenous levels of total DDB-2 protein.

Species predicted to react based on 100% sequence homology

Rat, Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to amino acids surrounding Ala174 of human DDB-2.

Background

Damaged DNA-Binding Protein (DDB) consists of a 127 kDa subunit (DDB-1) and a 48 kDa subunit (DDB-2) that contribute to the formation of the UV-damaged DNA-binding protein complex (UV-DDB) (1-3). In conjunction with CUL4A and ROC-1, the UV-DDB complex forms an E3 ubiquitin ligase that recognizes a broad spectrum of DNA lesions such as cyclobutane pyrimidine dimers, 6-4 photoproducts, apurinic sites and short mismatches. The complex polyubiquitinates components of the nucleotide excision repair pathway (4-6). Loss of DDB activity has been identified in a subset of xeroderma pigmentosum complementation group E (XP-E) patients and has been linked to the deficient repair of cyclobutane pyrimidine dimers in cells derived from these patients (7-10).

Background References

1. Reardon, J.T. et al. (1993) *J Biol Chem* 268, 21301-8.
2. Keeney, S. et al. (1993) *J Biol Chem* 268, 21293-300.
3. Hwang, B.J. and Chu, G. (1993) *Biochemistry* 32, 1657-66.
4. Chu, G. and Chang, E. (1990) *Proc Natl Acad Sci USA* 87, 3324-7.
5. Hirschfeld, S. et al. (1990) *Mol Cell Biol* 10, 2041-8.
6. Payne, A. and Chu, G. (1994) *Mutat Res* 310, 89-102.
7. Chu, G. and Chang, E. (1988) *Science* 242, 564-7.
8. Nichols, A.F. et al. (1996) *J Biol Chem* 271, 24317-20.
9. Kataoka, H. and Fujiwara, Y. (1991) *Biochem Biophys Res Commun* 175, 1139-43.
10. Keeney, S. et al. (1992) *Mutat Res* 273, 49-56.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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