

Aprataxin (D5P3C) Rabbit mAb

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

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit IgG	UniProt ID: #Q7Z2E3	Entrez-Gene Id: 54840
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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

Aprataxin (D5P3C) Rabbit mAb recognizes endogenous levels of total aprataxin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe282 of human aprataxin protein.

Background

Aprataxin is a DNA repair protein that resolves DNA lesions (DNA adenylates) caused by abortive ligations in single-strand break repair, double-strand break repair and base excision repair (1). Aprataxin is recruited to sites of DNA damage by PARP1 (2). In the mitochondria, aprataxin and tyrosyl-DNA-phosphodiesterase 1 (TDP1) are required for repair of single strand breaks caused primarily by reactive oxygen species (ROS) (3). The gene for aprataxin, *APTX*, is defective in the neurodegenerative disorder oculomotor apraxia type 1 (AOA1)(4). Researchers have shown that levels of aprataxin can predict patient response to irinotecan-based treatments in colorectal cancer (5).

Background References

1. Rass, U. et al. (2007) *J Biol Chem* 282, 9469-74.
2. Harris, J.L. et al. (2009) *Hum Mol Genet* 18, 4102-17.
3. Meagher, M. and Lightowlers, R.N. (2014) *Biochimie* 100, 121-4.
4. Schellenberg, M.J. et al. (2015) *Prog Biophys Mol Biol* 117, 157-65.
5. Dopeso, H. et al. (2010) *Clin Cancer Res* 16, 2375-82.

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 **M:** Mouse **R:** Rat

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