10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Aprataxin Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54283

## Product Information

| | |
|---|---|
| **Application** | IHC-P, IHC-F, IF, ICC, E |
| **Primary Accession** | Q7Z2E3 |
| **Reactivity** | Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 40740 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 54840 |
| **Other Names** | Aprataxin, 3.6.1.71, 3.6.1.72, Forkhead-associated domain histidine triad-like protein, FHA-HIT, APTX, AXA1 |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

| | |
|---|---|
| **Name** | APTX |
| **Synonyms** | AXA1 |
| **Function** | DNA-binding protein involved in single-strand DNA break repair, double-strand DNA break repair and base excision repair (PubMed:15044383, PubMed:15380105, PubMed:16964241, PubMed:17276982, PubMed:24362567). Resolves abortive DNA ligation intermediates formed either at base excision sites, or when DNA ligases attempt to repair non-ligatable breaks induced by reactive oxygen species (PubMed:16964241, PubMed:24362567). Catalyzes the release of adenylate groups covalently linked to 5'-phosphate termini, resulting in the production of 5'-phosphate termini that can be efficiently rejoined (PubMed:16964241, PubMed:17276982, PubMed:24362567). Also able to hydrolyze adenosine 5'-monophosphoramidate (AMP-NH(2)) and diadenosine tetraphosphate (AppppA), but with lower catalytic activity (PubMed:16547001). Likewise, catalyzes the release of 3'-linked guanosine (DNAppG) and inosine (DNAppI) from DNA, but has higher specific activity with 5'-linked adenosine (AppDNA) (By similarity). |

| | |
|---|---|
| **Cellular Location** | Nucleus, nucleoplasm. Nucleus, nucleolus Note=Upon genotoxic stress, colocalizes with XRCC1 at sites of DNA damage (PubMed:15380105). Colocalizes with MDC1 at sites of DNA double- strand breaks (PubMed:20008512). Interaction with NCL is required for nucleolar localization (PubMed:16777843). |
| **Tissue Location** | Widely expressed; detected in liver, kidney and lymph node (at protein level) (PubMed:14755728). Isoform 1 is highly expressed in the cerebral cortex and cerebellum, compared to isoform 2 (at protein level) (PubMed:14755728). Widely expressed; detected throughout the brain, in liver, kidney, skeletal muscle, fibroblasts, lymphocytes and pancreas (PubMed:11586299, PubMed:11586300, PubMed:15276230). |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.