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|--------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Product name:</b>     | Catalase Rabbit Polyclonal Antibody                                                                                      |
| <b>Cat number:</b>       | ABN07999                                                                                                                 |
| <b>Conjugate:</b>        | Unconjugated                                                                                                             |
| <b>Size:</b>             | 100μL                                                                                                                    |
| <b>Clone:</b>            | Polyclonal                                                                                                               |
| <b>Concentration:</b>    | 1mg/ml                                                                                                                   |
| <b>Host:</b>             | Rabbit                                                                                                                   |
| <b>Isotype:</b>          | IgG                                                                                                                      |
| <b>Immunogen:</b>        | The antiserum was produced against synthesized peptide derived from the C-terminal region of human CAT. AA range:478-527 |
| <b>Reactivity:</b>       | Human,Rat,Mouse,,Fish                                                                                                    |
| <b>Applications:</b>     | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000                                                  |
| <b>Molecular Weight:</b> | 60kDa                                                                                                                    |
| <b>Purification:</b>     | Affinity purification                                                                                                    |
| <b>Form:</b>             | Liquid                                                                                                                   |
| <b>Buffer:</b>           | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.                                       |
| <b>Storage:</b>          | Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.                             |

**Background:**

This gene encodes catalase, a key antioxidant enzyme in the bodies defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene. [provided by RefSeq, Oct 2009],catalytic activity:2 H(2)O(2) = O(2) + 2 H(2)O.,cofactor:Heme group.,cofactor:NADP.,disease:Defects in CAT are the cause of acatalasia (ACATLAS) [MIM:115500]; also known as acatalasemia. This disease is characterized by absence of catalase activity in red cells and is often associated with ulcerating oral lesions.,function:Occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells.,online information:Catalase entry,PTM:The N-terminus is blocked.,similarity:Belongs to the catalase family.,subunit:Homotetramer.,