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# BRP44 Rabbit pAb

BRP44 Rabbit pAb
Catalog # AP59002

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | O95563 |
| **Predicted** | Rat, Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 14279 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human BRP44 |
| **Epitope Specificity** | 21-100/127 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Mitochondrion inner membrane; Multi-pass membrane protein. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | BRP44 is a 127 amino acid protein belonging to the UPF0041 family. The gene that encodes BRP44 maps to human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma. |

## Additional Information

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| **Gene ID** | 25874 |
| **Other Names** | Mitochondrial pyruvate carrier 2, Brain protein 44, MPC2, BRP44 |
| **Dilution** | IHC-P=1:100-500,IHC-F=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

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| **Name** | MPC2 |
| **Synonyms** | BRP44 |
| **Function** | Mediates the uptake of pyruvate into mitochondria to maintain the balance between glycolysis and oxidative phosphorylation (PubMed:22628558, PubMed:26253029, PubMed:27317664, PubMed:29472561, PubMed:40044865, PubMed:40101766, PubMed:35278701). Plays an essential role in cellular metabolism (PubMed:40044865, PubMed:40101766). |
| **Cellular Location** | Mitochondrion inner membrane; Multi-pass membrane protein |

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