Datasheet for ABIN7603039

# anti-COX6A2 antibody (Middle Region)

Go to Product page

## Overview

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| Quantity: | 100 µg |
| Target: | COX6A2 |
| Binding Specificity: | Middle Region |
| Reactivity: | Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This COX6A2 antibody is un-conjugated |
| Application: | Western Blotting (WB) |

## Product Details

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| Purpose: | Anti-Cox6a2 Antibody Picoband® |
| Immunogen: | A synthetic peptide corresponding to a sequence in the middle region of mouse Cox6a2, which shares 66.7% and 100% amino acid (aa) sequence identity with human and rat Cox6a2, respectively. |
| Isotype: | IgG |
| Cross-Reactivity (Details): | No cross-reactivity with other proteins. |
| Characteristics: | Anti-Cox6a2 Antibody Picoband® (ABIN7603039). Tested in WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |

## Product Details

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| Purification: | Immunogen affinity purified. |

## Target Details

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| Target: | COX6A2 |
| Alternative Name: | Cox6a2 (COX6A2 Products) |
| Background: | Synonyms: Kelch repeat and BTB domain-containing protein 2, BTB and kelch domain-containing protein 1, KBTBD2, BKLHD1, KIAA1489<br>Tissue Specificity: Detected in liver, skeletal muscle, kidney, pancreas, spleen, thyroid, testis, ovary, small intestine and colon.<br>Background: Cytochrome c oxidase subunit VIa polypeptide 2 is a protein that in humans is encoded by the COX6A2 gene. Cytochrome c oxidase (COX), the terminal enzyme of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. It is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may be involved in the regulation and assembly of the complex. This nuclear gene encodes polypeptide 2 (heart/muscle isoform) of subunit VIa, and polypeptide 2 is present only in striated muscles. Polypeptide 1 (liver isoform) of subunit VIa is encoded by a different gene, and is found in all non-muscle tissues. These two polypeptides share 66 % amino acid sequence identity. |
| Molecular Weight: | 11 kDa |
| Gene ID: | 12862 |
| UniProt: | P43023 |

## Application Details

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| Application Notes: | Western blot, 0.25-0.5 µg/mL, Mouse, Rat<br>1. Bachman, N. J., Riggs, P. K., Siddiqui, N., Makris, G. J., Womack, J. E., Lomax, M. I. Structure of the human gene (COX6A2) for the heart/muscle isoform of cytochrome c oxidase subunit VIa and its chromosomal location in humans, mice, and cattle. Genomics 42: 146-151, 1997. 2. Inoue, M., Uchino, S., Iida, A., Noguchi, S., Hayashi, S., Takahashi, T., Fujii, K., Komaki, H., Takeshita, E., Nonaka, I., Okada, Y., Yoshizawa, T., Van Lommel, L., Schuit, F., Goto, Y., Mimaki, M., Nishino, I. COX6A2 variants cause a muscle-specific cytochrome c oxidase deficiency. Ann. Neurol. 86: 193-202, 2019. 3. Quintens, R., Singh, S., Lemaire, K., De Bock, K., Granvik, M., |

## Application Details

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| | Schraenen, A., Vroegrijk, I. O. C. M., Costa, V., Van Noten, P., Lambrechts, D., Lehnert, S., Van Lommel, L., and 10 others. Mice deficient in the respiratory chain gene Cox6a2 are protected against high-fat diet-induced obesity and insulin resistance. PLoS One 8: e56719, 2013. Note: Electronic Article. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL. |
| Concentration: | 500 µg/mL |
| Buffer: | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |