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| Product name: | UCP3 Rabbit Polyclonal Antibody |
| Cat number: | ABN19597 |
| Conjugate: | Unconjugated |
| Size: | 100µL |
| Clone: | Polyclonal |
| Concentration: | 1mg/ml |
| Host: | Rabbit |
| Isotype: | IgG |
| Immunogen: | The antiserum was produced against synthesized peptide derived from human UCP3. AA range:259-308 |
| Reactivity: | Human,Mouse,Rat |
| Applications: | WB 1:500-1:2000,ELISA 1:5000-1:20000 |
| Molecular Weight: | 33kDa |
| Purification: | Affinity purification |
| Form: | Liquid |
| Buffer: | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N. |
| Storage: | Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles. |

Background:

Mitochondrial uncoupling proteins (UCP) are members of the larger family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. The different UCPs have tissue-specific expression; this gene is primarily expressed in skeletal muscle. This gene's protein product is postulated to protect mitochondria against lipid-induced oxidative stress. Expression levels of this gene increase when fatty acid supplies to mitochondria exceed their oxidation capacity and the protein enables the export of fatty acids from mitochondria. disease: Defects in UCP3 may be involved in severe obesity [MIM:601665]., function: UCP are mitochondrial transporter proteins that create proton leaks across the inner mitochondrial membrane, thus uncoupling oxidative phosphorylation. As a result, energy is dissipated in the form of heat. May play a role in the modulation of tissue respiratory control. Participates in thermogenesis and energy balance., similarity: Belongs to the mitochondrial carrier family., similarity: Contains 3 Solcar repeats., tissue specificity: Only in skeletal muscle and heart. Is more expressed in glycolytic than in oxidative skeletal muscles.,