OXPHOS Cocktail Antibody Sampler Kit

HAK21059

Contains Product	Quantity	Applications	Species reactivity	MW(kDa)
ATP5A1 [ET1703-53]	20μl	WB,IF-Cell,IF-Tissue,IHC-P	H,M,R	60 kDa
Ubiquinol-Cytochrome C Reductase Core Protein I [HA721640]	20μl	WB,IHC-P,IF-Tissue,IF-Cell	H,M,R	53 kDa
SDHB [ET1706-30]	20μl	WB,IHC-P	H,M,R	32 kDa
MTCO2 [ET1610-72]	20μl	WB,IF-Cell,IF-Tissue,IHC-P	H	26 kDa
NDUFB8 [ET7108-25]	20μl	WB,IP,IHC-P,IF-Cell	H,M,R	22 kDa
HRP-Goat Anti-Rabbit IgG (H+L) [HA1001]	100ul	WB,ELISA,IHC-P	Rab	

Description: The OXPHOS Cocktail Antibody Sampler kit provides an economical means to investigate the relative levels of five OXPHOS complexes in mitochondrial protein samples from humans. The OXPHOS Cocktail Antibody Sampler kit contains enough primary and secondary antibodies to perform two Western blot experiments.

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Background OXPHOS (oxidative phosphorylation) transfer electrons to molecular oxygen through the mitochondrial respiratory chain, which involves four protein complexes. Complexes I, II, III, and IV (CI, CII, CIII, and CIV) and two mobile electron carriers: Coenzyme Q (CoQ) and cytochrome c. The respiratory chain produces a transmembrane proton gradient guided by complex V (also known as ATP synthase, CV) to synthesize ATP.

Database links: UniProt ID: P25705, Q03265, P15999, P31930, Q9CZ13, Q68FY0, P21912, Q9CQA3, P21913, P00403, O95169, Q9D6J5, 293991

Images

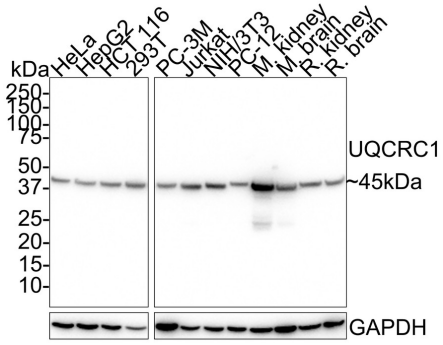

Fig1: Western blot analysis of Ubiquinol-Cytochrome C Reductase Core Protein I on different lysates with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/5,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: HepG2 cell lysate (20 µg/Lane)
Lane 3: HCT 116 cell lysate (20 µg/Lane)
Lane 4: 293T cell lysate (20 µg/Lane)
Lane 5: PC-3M cell lysate (20 µg/Lane)
Lane 6: Jurkat cell lysate (20 µg/Lane)
Lane 7: NIH/3T3 cell lysate (20 µg/Lane)
Lane 8: PC-12 cell lysate (20 µg/Lane)
Lane 9: Mouse kidney tissue lysate (40 µg/Lane)
Lane 10: Mouse brain tissue lysate (40 µg/Lane)
Lane 11: Rat kidney tissue lysate (40 µg/Lane)
Lane 12: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 53 kDa
Observed band size: 45 kDa

Exposure time: 8 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721640) at 1/5,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

Background References

1. Vercellino I, Sazanov LA. The assembly, regulation and function of the mitochondrial respiratory chain. Nat Rev Mol Cell Biol. 2022 Feb;23(2):141-161.
2. Nolfi-Donegan D, Braganza A, Shiva S. Mitochondrial electron transport chain: Oxidative phosphorylation, oxidant production, and methods of measurement. Redox Biol. 2020 Oct;37:101674.