product AS12 1850
UCP | Uncoupling protein

**Product Information**

**Background**
UCP (uncoupling protein) is an inner membrane mitochondrial protein that can dissipate the proton gradient before it can be used to provide the energy for oxidative phosphorylation. Synonyms: AtUCP, Uncoupling protein 2.

**Immunogen**
KLH-conjugated synthetic peptide derived from known UCP protein sequences, including UCP1 (AT3G54110) and UCP2 (AT5G58970) of Arabidopsis thaliana.

**Host**
Rabbit

**Clonality**
Polyclonal

**Purity**
Affinity purified serum

**Format**
Lyophilized in PBS pH 7.4

**Quantity**
200 µg

**Reconstitution**
For reconstitution add 200 µl of sterile water.

**Storage**
Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.

**Tested Applications**
western blot (WB)

**Related Products**
- Antibodies to other plant mitochondrial proteins
- Plant and algal protein extraction buffer
- Secondary antibodies

**Additional Information**
Peptide used to elicit this antibody is conserved in both isoforms, UCP1 and UCP2 of Arabidopsis thaliana.

**Application Information**

**Recommended Dilution**
1 : 2000 with standard ECL (WB)

**Expected Apparent MW**
32 kDa

**Confirmed Reactivity**
Arabidopsis thaliana, Splanum lycopersicum, Triticum aestivum, Vicia faba (protoplasts)

**Predicted Reactivity**
Citrus sinensis, Dracunulus vulgaris, Glycine max, Litchi chinensis, Medicago trilobiolides, Ricinus communis, Oryza sativa, Populus trichocarpa, Triticum aestivum, Saccharum officinarium (sugarcane).

**Not Reactive In**
No confirmed exceptions from predicted reactivity are currently known

**Additional Information**

**Selected References**


**application example**

**10 µg** of mitochondrial fraction from *Arabidopsis thaliana* and 25 µg of *Arabidopsis thaliana* leaf extract were separated on 10% gel and blotted on nitrocellulose membrane using wet transfer (0.22% CAPS, pH 11). Filters where blocked (1.5h) in 5% milk in TBST (1X TBS, 0.1% Tween 20), incubated with 1:5000 anti-VDAC1 antibodies (2h in TBST) followed by incubation with 1:10 000 secondary anti-rabbit (1h) HRP-coupled antibodies from Agrisera, AS09 602 and visualized with standard ECL on Kodak autoradiography film for 15-60 s. Mitochondria were isolated as described by Urantowka et al. (Plant Mol Biol, 2005, 59:239-52). Mitochondrial pellets were suspended in 1X Laemmli buffer (5% beta-mercaptoethanol, 3.7% glycerol, 1.1% SDS, 23 mM Tris- HCl pH 6.8, 0.01% bromophenol blue), heated (95°C, 5 min.) and centrifuged (13 000rpm, 1 min.). Leaf extracts were prepared as described by Martinez-Garcia et al. (Plant J., 1999, 20:251-7).

*Courtesy Dr. Janusz Piechota, Wrocław University, Poland*