

Anti-Potassium channel AKT2/3 antibody

Catalog: PHY2442A

Product Information

Description:	Rabbit polyclonal antibody
Background:	<p>AKT2 is a photosynthate- and light-dependent inward rectifying potassium channel with unique gating properties that are regulated by phosphorylation. Expressed in guard cell protoplasts and in the phloem and xylem of aerial portions of the plant. The channel can coassemble with another K⁺ channel, KAT1, in vitro. In guard cells, AKT2/3 is responsible for the Ca²⁺ sensitivity of the K⁺ uptake channel. In the phloem, it regulates the sucrose/H⁺ symporters via the phloem potential. AKT2 belongs to the Shaker family K⁺ channels which include the following groups based on phylogenetic analysis (FEBS Letters (2007) 581: 2357): I (inward rectifying channel): AKT1 (AT2G26650), AKT5 (AT4G32500) and SPIK (also known as AKT6, AT2G25600); II (inward rectifying channel): KAT1 (AT5G46240) and KAT2 (AT4G18290); III (weakly inward rectifying channel): AKT2 (AT4G22200); IV (regulatory subunit involved in inwardly rectifying conductance formation): KAT3 (also known as AtKC1, AT4G32650); V (outward rectifying channel): SKOR (AT3G02850) and GORK (AT5G37500).</p>
Synonyms:	AKT2, AKT2/3, AKT3, KT2/3, POTASSIUM TRANSPORT 2/3
Immunogen:	KLH-conjugated synthetic peptide (16 aa from Central section) derived from <i>Arabidopsis thaliana</i> AKT2 (AT4G22200).
Form:	Lyophilized
Quantity:	150 µg
Purification:	Immunogen affinity purified
Reconstitution:	<p>Reconstitution with 150 µl of 0.01 M sterile PBS.</p> <p>"Note: please spin tube briefly prior to opening it to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tube".</p>
Stability & Storage:	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <p>12 months from date of receipt, -20 to -70°C as supplied.</p> <p>6 months, -20 to -70°C under sterile conditions after reconstitution.</p> <p>1 month, 2 to 8°C under sterile conditions after reconstitution.</p>
Shipping:	The product is shipped at 4°C. Upon receipt, store it immediately at the

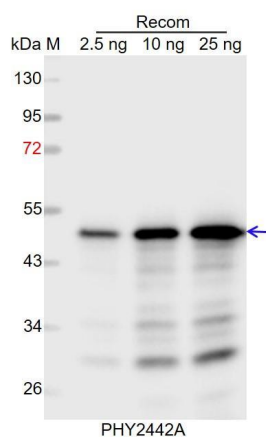
Research Use Only

temperature recommended above.

Application Information

Recommended Dilution:	Western Blot (1:1000-1:2000)
	Note: Optimal dilutions/concentrations should be determined by the end user.
Expected / apparent MW:	91 kDa
Predicted Reactivity:	Among species analyzed, the sequence of the synthetic peptide used for immunization is 80-99% homologues with the sequence in <i>Brassica napus</i> , <i>Brassica rapa</i> , <i>Populus trichocarpa</i> , <i>Glycine max</i> , <i>Cucumis sativus</i> , <i>Spinacia oleracea</i> , <i>Vitis vinifera</i> , <i>Nicotiana tabacum</i> , <i>Gossypium raimondii</i> , <i>Medicago truncatula</i> , <i>Solanum lycopersicum</i> , <i>Solanum tuberosum</i> , <i>Panicum virgatum</i> , <i>Oryza sativa</i> . For more species homologues information, please contact tech support at tech@phytoab.com .

Application Example



Recom: 2.5 ng, 10 ng and 25 ng recombinant protein containing the peptide for immunization and having a molecular mass of 50 kDa.

Electrophoresis: 12% SDS-PAGE

Transfer: blotting to NC (nitrocellulose) membrane for 1 h.

Blocking: 5% skim milk at RT or 4°C for 1 h.

Primary antibody: 1:1000 dilution overnight at 4°C.

Secondary antibody: 1:10000 dilution using Goat Anti-Rabbit IgG H&L (HRP) (Cat# PHY6000).

Detection: using chemiluminescence substrate and image were captured with CCD camera.