

product **AS07 241**
PEPCK | PEP carboxy kinase

product information

background	Phosphoenolpyruvate carboxykinase (PEPCK , PEP carboxykinase) Is an enzyme that catalyses the conversion of oxaloacetate and ATP to phosphoenolpyruvate, carbon dioxide and ADP. PEPCK is encoded by two genes in plants: pck1 and pck2. Both genes are nuclear, located on chromosome 4 and 5 respectively (in Arabidopsis). The protein products, PEPCK1 and PEPCK2, are both highly conserved in the model plant, <i>Arabidopsis thaliana</i> .
immunogen	<u>KLH</u> -conjugated synthetic peptide well conserved in both PEPCK1 and 2 sequences from different plant species including <i>Zea mays</i> <u>Q9SLZ0</u>
antibody format	rabbit polyclonal serum lyophilized
quantity	200 µl 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)
additional information	to be added when available

application information

recommended dilution	1 : 1000 with standard ECL (WB)
expected apparent MW	73 78 kDa
confirmed reactivity	<i>Miscantus giganteus</i> , <i>Panicum virgatum</i> , <i>Phaseolus vulgaris</i> , <i>Spartina alterniflora</i> , <i>Spartina patens</i> , <i>Zea mays</i> , mice
predicted reactivity	<i>Brassica napus</i> , <i>Cucumis sativus</i> , <i>Flaveria</i> sp., <i>Lycopersicon esculentum</i> , <i>Medicago sativa</i> , <i>Oryza sativa</i> , <i>Panicum maximum</i> , <i>Urochloa panicoides</i> , <i>Zoysia japonica</i> , <i>Zea mays</i>
not reactive in	<i>Arabidopsis thaliana</i>
additional information	due to the MW of this protein we suggest to use a gradient gel for protein separation and a longer transfer time. Higher protein load 10-20 µg is advised when working with this antibody.
selected references	to be added when available

application example

20 µg of total protein from (1) *Arabidopsis thaliana* total cell extracted with Protein Extraction Buffer, PEB (**AS08 300**), (2) *Phaseolus vulgaris* total cell, extracted with PEB, (3) *Zea mays* total cell extracted with PEB, (4) *Miscanthus giganteus* total cell extracted with PEB, (5) *Panicum virgatum* total cell extracted with PEB, (6) *Spartina alterniflora* total cell extracted with PEB, (7) *Spartina patens* total cell extracted with PEB, were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 1h to **PVDF**. Blots were blocked immediately following transfer in 2% ECL Advance blocking reagent (GE Healthcare) in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 10 000 for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Abcam) diluted to 1:50 000 in 2% ECL Advance blocking solution for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with ECL Advance detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad).

