

Agrisera

This product is for research use only (not for diagnostic or therapeutic use)

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Product no **AS15 3079**

LCY | Lycopene beta-cyclase (chloroplastic)

Product information

Background	LCY (lycopene beta-cyclase) is an enzyme (EC:5.5.1.19) of beta carotene biosynthesis pathway. Catalyzes the double cyclization reaction which converts lycopene to beta-carotene and neurosporene to beta-zeacarotene. Protein is encoded by LCY1 gene.
Immunogen	His-tagged, recombinant <i>Arabidopsis thaliana</i> LCY1 lycopene beta-cyclase, overexpressed in <i>E.coli</i> , UniProt: Q38933 , TAIR: AT3G10230
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 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	AS13 2710 Anti-IPP isomerase isopentyl pyrophosphate isomerase, rabbit antibody AS13 2709 Anti-LYC Lycopene beta cyclase, chloroplastic, rabbit antibodies (to 2/3rd of LYC) other antibodies to carotenoid biosynthesis pathway
Additional information	This product can be sold with ProClin if requested.

Application information

Recommended dilution	1 : 1000-1 : 128 000 (WB)
Expected apparent MW	56 50 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i>
Predicted reactivity	<i>Adonis aestivalis var. palaestina, Bixa orellana, Brassica napus, Brassica rapa subsp. pekinensis, Camellia sinensis, Capsicum annuum, Carica papaya, Citrus maxima, Citrus sinensis, Chrysanthemum morifolium, Cucumis sativus, Cucurbita moschata, Daucus carota subsp. sativus, Diospyros kaki, Eriobotrya japonica, Erythranthe lewisii, Gentiana lutea, Glycine soja, Ipomoea sp. Kenyan, Lycium ruthenicum, Medicago truncatula, Morus notabilis, Narcissus pseudonarcissus, Nicotiana tabacum, Populus trichocarpa, Ricinus communis, Rosa rugosa, Salicornia europaea, Sandersonia aurantiaca, Solanum lycopersicum, Taraxacum officinale, Taraxacum officinale, Theobroma cacao, Vitis vinifera</i> Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known.

For high resolution images, please visit the specific product page at www.agrisera.com

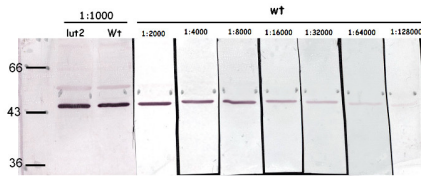
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application example



Total protein from *Arabidopsis thaliana* leaves, wild type and Lut2 (*Arabidopsis thaliana* mutant devoid of lycopene-epsilon-cyclase, an enzyme at the same branching point catalyzed by lycopene-beta-cyclase (LCY)) corresponding to 0.5 µg of chlorophylls, were extracted with loading buffer (10% glycerol, 62.5 mM Tris pH 6.8, 2% SDS, 5% β-mercaptoethanol) and denatured at 100 °C (boiling water) for 1 min.

Proteins were separated on 12% SDS-PAGE (Laemly) and blotted 1h to PVDF using tank transfer. Blots were blocked with blocking solution (PBS 1X, 0.2% w/v Tween, 5% powder milk) for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody diluted in blocking solution, at a dilution of from 1:1000 to 1:128000) for 1h at RT with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed 3 times for 10 min in blocking solution at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG alkaline phosphatase conjugated, diluted to 1:30 000 in blocking buffer for 1h at RT with agitation. The blot was washed 2 times for 10 min in blocking solution and once with PBS 1X solution for 10 min, then developed in developing buffer NBT/BCIP by manual agitation.

Courtesy of Stefano Cazzaniga, University of Verona, Italy

Mutant devoid of LCY is not available (not viable) and using lut2 mutant allowed to test if the antibody discriminates the two different cyclases.