

# Agrisera

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

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Product no **AS05 074**

## GDC-H | H protein of glycine decarboxylase complex (GDC)

### Product information

**Background** | The Glycine decarboxylase complex (**GDC**) is abundant in mitochondria matrix of C3 leaves and functions in photorespiratory carbon recovery. GDC enzyme can account for up to 50% of matrix protein, and is responsible for the most prominent metabolic activity in the mitochondria of illuminated leaves, photorespiration. GDC is a multienzyme complex composed of four component enzymes, the P-, H-, T-, and L-proteins and is responsible for the conversion of glycine produced in the peroxisome to serine in the mitochondria during photorespiratory cycle. The H-protein plays a key role as a mobile substrate that commutes between the other subunits, allowing its lipoic acid "arm" to visit the active sites of the other three components.

**Immunogen** | purified GDC-H protein from *Spinacia oleracea*

**Host** | Rabbit

**Clonality** | Polyclonal

**Purity** | Total IgG

**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** | Tissue printing (TP), Western blot (WB)

**Related products** | [AS06 203A](#) | Anti- Idh | isocytate dehydrogenase rabbit antibodies, marker of mitochondrial matrix

[AS07 212](#) | Anti-VDAC1 marker, rabbit antibodies for mitochondrial outer membrane

[Plant protein extraction buffer](#)

[Secondary antibodies](#)

**Additional information** | Cellular [compartment marker] of mitochondrial matrix

### Application information

**Recommended dilution** | 1 : 5 000 (TP), (WB)

**Expected | apparent MW** | 16 kDa

**Confirmed reactivity** | *Arabidopsis thaliana*, *Petunia hybrida* cv. Mitchell, *Portulaca grandiflora*, *Spinacia oleracea*, *Triticum aestivum*, *Vicia faba*

**Predicted reactivity** | higher plants

**Not reactive in** | No confirmed exceptions from predicted reactivity are currently known.

**Additional information** | This antibody can be used on total cell extract of *Arabidopsis thaliana*. For high resolution images, please visit the specific product page at [www.agrisera.com](http://www.agrisera.com)

**Selected references** | [Guralnick](#) et al. (2020). The Development of Crassulacean Acid Metabolism (CAM) Photosynthesis in Cotyledons of the C4 Species, *Portulaca grandiflora* (Portulacaceae). *Plants* (Basel). 2020 Jan 2;9(1). pii: E55. doi: 10.3390/plants9010055. (tissue printing)  
[Réthoré](#) et al. (2019). *Arabidopsis* seedlings display a remarkable resilience under severe mineral starvation using their metabolic plasticity to remain self-sufficient for weeks. *Plant J.* 2019 Mar 22. doi: 10.1111/tpj.14325.

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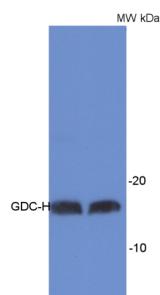
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Long et al. (2015). Contributions of photosynthetic and non-photosynthetic cell types to leaf respiration in Vicia faba L. and their responses to growth temperature. *Plant Cell Environ.* 2015 Apr 1. doi: 10.1111/pce.12544.

Córdoba-Cañero et al. (2011). Arabidopsis ARP endonuclease functions in a branched base excision DNA repair pathway completed by LIG1. *The Plant J* in print

**For high resolution images, please visit the specific product page at [www.agrisera.com](http://www.agrisera.com)**

## Application example



**15 µg of total protein** from *Arabidopsis thaliana* leaf extract has been loaded per lane. Primary antibody has been used in 1: 5000 dilution using chemiluminescent detection.

Courtesy of Dr Olivier Keech, UPSC, Umeå, Sweden