product **AS07 268**

Fucose

product information

background	This antibody specifically cross-reacts against fucose residues bound to the protein N-glycans in alpha 1,3. This residue is characterisitc of the plant protein N-glycans and is absent in protein N-glycans from animals. This residue is added in the Golgi apparatus.
immunogen	core fucose residues bound to the N-glycan in alpha 1,3
antibody format	rabbit polyclonal affinity purified serum, in PBS pH 7.4 lyophilized
quantity	50 µg 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	AS07 267 | anti-xylose rabbit antibody
additional information	Alpha (1,3) fucose is present not only in plants but also in some invertebrates (such as nematodes, bees, etc.) . However, cross-reaction with glycoproteins from these organisms is weaker than the one observed in plants. This sugar residue does not exist in mammals, in their endogenous glycoproteins.

application information

recommended dilution	1 ug/10 ml of incubation buffer, with standard ECL (WB)
expected | apparent MW	10 - 100 for various glycoproteins
confirmed reactivity	higher plants
predicted reactivity	higher plants
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	controls: PLA2 (phospholipase 2 from bee venom) which contains only 1.3 fucose, Sigma, product number P9279 Type II - horseradish peroxidase which contains 1.2 Xylose and 1.3 fucose, Sigma, product number P8250

The antibody does not recognize alpha 1,6-fucose.

selected references

Al-Ghouleh et al. (2012). The Glycosylation Pattern of Common Allergens: The Recognition and Uptake of Der p 1 by Epithelial and Dendritic Cells Is Carbohydrate Dependent. PLOS one, open access.

Baiet et all. (2010). N-glycans of Phaeodactylum tricornutum diatom and functional characterization of its N-acetylglucosaminyltransferase I enzyme. J Biol. Chem. Dec 17.

application example

Total cell extract from Arabidopsis thaliana wild type (**1**) and cell extracts from different mutants defective in fucosyltransferases (**2-5**) (data not published yet)**.**

Primary antibody has been used at 10 µg/10 ml of incubation buffer. Detection has been done using ECL.

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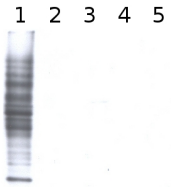

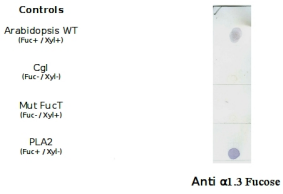

Dot blot reaction of anti-fucose antibodies with various controls: *Arabidopsis thaliana* wt total cell extract, Cgl protein, *Arabidopsis thaliana* total cell extract from a mutant FucT , PLA2 (phospholipase A2).