

product **AS07 268**  
**Fucose**

## product information

<b>background</b>	This antibody specifically cross-reacts against fucose residues bound to the protein N-glycans in alpha 1,3. This residue is characteristic of the plant protein N-glycans and is absent in protein N-glycans from animals. This residue is added in the Golgi apparatus.
<b>immunogen</b>	core fucose residues bound to the N-glycan in alpha 1,3
<b>antibody format</b>	rabbit polyclonal affinity purified serum, in PBS pH 7.4 lyophilized
<b>quantity</b>	50 µg for reconstitution add 80 µl of sterile water.
<b>storage</b>	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.
<b>tested applications</b>	western blot (WB)
<b>additional information</b>	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

<b>recommended dilution</b>	1 ug/10 ml of incubation buffer, with standard ECL (WB)
<b>expected   apparent MW</b>	10 - 100 for various glycoproteins
<b>confirmed reactivity</b>	higher plants
<b>predicted reactivity</b>	higher plants
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the moment
<b>additional information</b>	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 al. (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.

