

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Tissue α -L-Fucosidase/FUCA1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 810607
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Tissue α -L-Fucosidase/FUCA1 Gln32-Lys466 Accession # P04066
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.2 μ g/mL	See Below
Simple Western	2 μ g/mL	See Below


DATA

Western Blot

Detection of Human Tissue α -L-Fucosidase/FUCA1 by Western Blot. Western blot shows lysates of human placenta tissue and human thyroid tissue. PVDF membrane was probed with 0.2 μ g/mL of Mouse Anti-Human Tissue α -L-Fucosidase/FUCA1 Monoclonal Antibody (Catalog # MAB7039) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Tissue α -L-Fucosidase/FUCA1 at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western

Detection of Human Tissue α -L-Fucosidase/FUCA1 by Simple Western™. Simple Western lane view shows lysates of human thyroid tissue, loaded at 0.5 mg/mL. A specific band was detected for Tissue α -L-Fucosidase/FUCA1 at approximately 56 kDa (as indicated) using 2 μ g/mL of Mouse Anti-Human Tissue α -L-Fucosidase/FUCA1 Monoclonal Antibody (Catalog # MAB7039). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Fucosylated glycoconjugates play numerous roles in biological processes, such as development, apoptosis and the immune responses, and are involved in the pathology of inflammation, cancer and cystic fibrosis (1, 2, 3, 4). Tissue α -L-Fucosidase, also known as FUCA1, is a lysosomal enzyme responsible for hydrolyzing α -L-fucose moieties from glycolipids and oligosaccharides (5). The mature enzyme in the liver has a molecular weight of 200 kDa and exists in the native state as a tetramer (6). Defects in FUCA1 are the cause of fucosidosis (7, 8, 9), an autosomal recessive lysosomal storage disease characterized by the accumulation of fucose-containing glycolipids and glycoproteins in various tissues. Serum α -L-fucosidase has been identified as a useful marker for oral cancer (10).

References:

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