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MGEA5 Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22340a

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	O60502
Other Accession	Q9EQQ9, Q8VIJ5
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB57955
Calculated MW	102915

Additional Information

Gene ID	10724
Other Names	Protein O-GlcNAcase, OGA, 3.2.1.169, Beta-N-acetylglucosaminidase, 3.2.1.-, Beta-N-acetylhexosaminidase, Beta-hexosaminidase, Meningioma-expressed antigen 5, N-acetyl-beta-D-glucosaminidase, N-acetyl-beta-glucosaminidase, Nuclear cytoplasmic O-GlcNAcase and acetyltransferase, NCOAT, MGEA5, HEXC, KIAA0679, MEA5
Target/Specificity	This MGEA5 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 236-269 amino acids from the human region of human MGEA5.
Dilution	WB~~1:2000 FC~~1:25 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MGEA5 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	OGA {ECO:0000303|PubMed:20863279, ECO:0000312|HGNC:HGNC:7056}

Function	[Isoform 1]: Cleaves GlcNAc but not GalNAc from O- glycosylated proteins (PubMed:11148210, PubMed:11788610, PubMed:20673219, PubMed:22365600, PubMed:24088714, PubMed:28939839, PubMed:37962578). Deglycosylates a large and diverse number of proteins, such as CRYAB, ELK1, GSDMD, LMNB1 and TAB1 (PubMed:28939839, PubMed:37962578). Can use p-nitrophenyl-beta-GlcNAc and 4-methylumbelliferone-GlcNAc as substrates but not p-nitrophenyl-beta-GalNAc or p-nitrophenyl-alpha-GlcNAc (in vitro) (PubMed:20673219). Does not bind acetyl-CoA and does not have histone acetyltransferase activity (PubMed:24088714).
Cellular Location	[Isoform 3]: Nucleus
Tissue Location	Ubiquitous. Shows highest expression in the brain, placenta and pancreas.

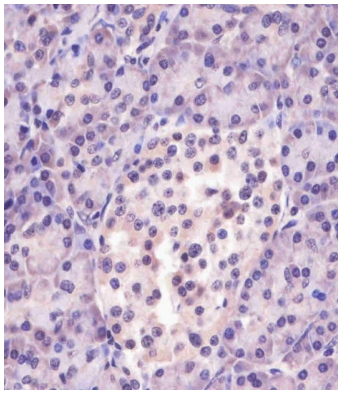
Background

Isoform 1: Cleaves GlcNAc but not GalNAc from O- glycosylated proteins. Can use p-nitrophenyl-beta-GlcNAc and 4- methylumbelliferone-GlcNAc as substrates but not p-nitrophenyl-beta-GalNAc or p-nitrophenyl-alpha-GlcNAc (in vitro) (PubMed:11148210). Does not bind acetyl-CoA and does not have histone acetyltransferase activity (PubMed:24088714).

References

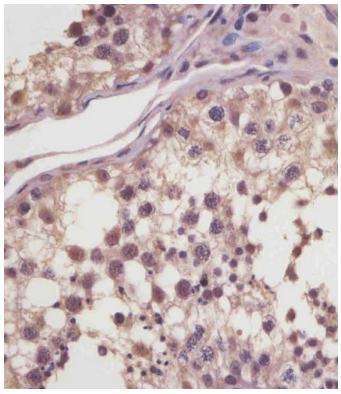
Heckel D.,et al.Hum. Mol. Genet. 7:1859-1872(1998).
Comtesse N.,et al.Biochem. Biophys. Res. Commun. 283:634-640(2001).
Gao Y.,et al.J. Biol. Chem. 276:9838-9845(2001).
Ishikawa K.,et al.DNA Res. 5:169-176(1998).
Nakajima D.,et al.DNA Res. 9:99-106(2002).

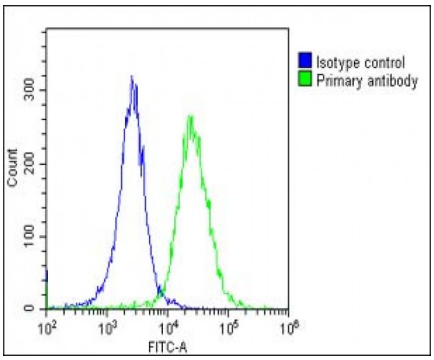
Images



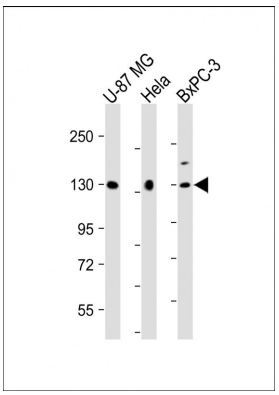
AP22340a staining MGEA5 in human pancreas tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

AP22340a staining MGEA5 in human testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.





Overlay histogram showing Hela cells stained with AP22340a(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22340a, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-MGEA5 Antibody (N-Term) at 1:2000 dilution Lane 1: U-87 MG whole cell lysate Lane 2: Hela whole cell lysate Lane 3: BxPC-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 103 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.