10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MBOAT4 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12316c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96T53
Other Accession	NP_001094386.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31180
Calculated MW	49716
Antigen Region	258-287

Additional Information

Gene ID	619373
Other Names	Ghrelin O-acyltransferase, 231-, Membrane-bound O-acyltransferase domain-containing protein 4, O-acyltransferase domain-containing protein 4, MBOAT4, GOAT, OACT4
Target/Specificity	This MBOAT4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 258-287 amino acids from the Central region of human MBOAT4.
Dilution	WB~~1:1000 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	MBOAT4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MBOAT4 (HGNC:32311)
Synonyms	GOAT, OACT4

Function	Catalyzes ghrelin acylation at 'Ser-3' using preferentially octanoyl-CoA, hexanoyl-CoA and decanoyl-CoA as acyl-CoA donors leading to ghrelin activity (PubMed:18443287, PubMed:24045953, PubMed:25562443, PubMed:28134508). In vitro also uses acyl-CoA donors of different lengths from short-chain (C2) to long-chain fatty acids (C16) knowing that acyl-CoA donors from butanoyl-CoA (C4) to dodecanoyl-CoA (C12) are more efficient compared to longer acyl-CoA donors, such as myristoyl- CoA (C14) and palmitoyl-CoA (C16) that are not efficient (PubMed:18443287).
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P0C7A3}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P0C7A3}
Tissue Location	Expressed predominantly in stomach with moderate levels in pancreas and relatively low levels in most other tissues

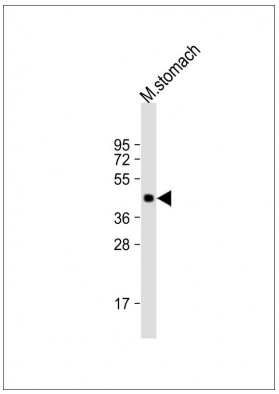
Background

MBOAT4 mediates the octanoylation of ghrelin at 'Ser-3'. Can use a variety of fatty acids as substrates including octanoic acid, decanoic acid and tetradecanoic acid.

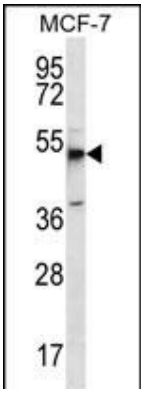
References

Takahashi, T., et al. J. Biochem. 146(5):675-682(2009) Gomez, R., et al. Arthritis Rheum. 60(6):1704-1709(2009) Gutierrez, J.A., et al. Proc. Natl. Acad. Sci. U.S.A. 105(17):6320-6325(2008)

Images

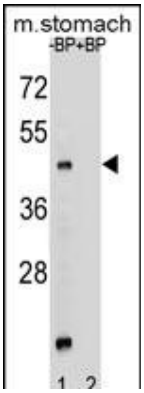


Anti-MBOAT4 Antibody (Center) at 1:2000 dilution + mouse stomach lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

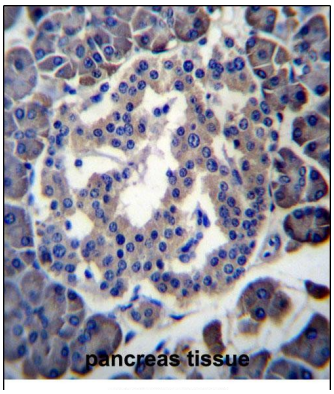


MBOAT4 Antibody (Center) (Cat. #AP12316c) western blot analysis in MCF-7 cell line lysates (35ug/lane).This demonstrates the MBOAT4 antibody detected the MBOAT4 protein (arrow).

Western blot analysis of MBOAT4 Antibody (Center) Pab (Cat. #AP12316c) pre-incubated without(lane 1) and with(lane 2) blocking peptide in mouse stomach tissue lysate. MBOAT4 (arrow) was detected using the purified



Pab.



MBOAT4 Antibody (Center) (Cat. #AP12316c)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MBOAT4 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.