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Anti-ProProtein Convertase PC4 Antibody

Catalog # ABO11393

Product Information

Application	WB
Primary Accession	P29121
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Proprotein convertase subtilisin/kexin type 4(PCSK4) detection. Tested with WB in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	18551
Other Names	Proprotein convertase subtilisin/kexin type 4, 3.4.21.-, KEX2-like endoprotease 3, Neuroendocrine convertase 3, NEC 3, Prohormone convertase 3, Pcsk4, Nec-3, Nec3
Calculated MW	73214
Application Details	Western blot, 0.1-0.5 □g/ml, Rat, Mouse
Tissue Specificity	Expressed abundantly in the testis. .
Source	Eukaryota
Protein Name	Proprotein convertase subtilisin/kexin type 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of mouse Proprotein convertase PC4(117-133aa DPWFSKQWYMNKEIQQD), different from the related rat sequence by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities	Belongs to the peptidase S8 family. Furin subfamily.

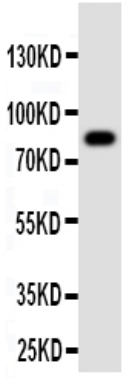
Protein Information

Name	Pcsk4
Synonyms	Nec-3, Nec3
Function	Proprotein convertase involved in the processing of hormone and other protein precursors at sites comprised of pairs of basic amino acid residues. In males, important for ADAM2 processing as well as other acrosomal proteins with roles in fertilization and critical for normal fertilization events such as sperm capacitation, acrosome reaction and binding of sperm to zona pellucida (PubMed:16371590, PubMed:19342015, PubMed:21302280, PubMed:9192653). Also plays a role in female fertility, involved in the regulation of trophoblast migration and placental development, may be through the proteolytical processing and activation of proteins such as IGF2 (By similarity). May also participate in folliculogenesis in the ovaries (PubMed:11164898).
Cellular Location	Cytoplasmic vesicle, secretory vesicle, acrosome membrane
Tissue Location	Expressed abundantly in the testis since postnatal Day 16 (PubMed:1372895, PubMed:16371590, PubMed:21302280). In testis, strongly detected in round and elongated spermatids as well as spermatocytes. Also observed in residual bodies engulfed by Sertoli cells at spermatogenic stages VIII and IX (PubMed:16371590). In ovaries, expressed in macrophage-like cells of the ovarian theca, interstitium and corpora lutea (PubMed:11164898)

Background

PCSK4(Proprotein Convertase, Subtilisin/Kexin-Type, 4), is an enzyme that in humans is encoded by the PCSK4 gene. The gene for PC4(Pcsk4 locus) was mapped to mouse chromosome 10, close to the adipsin locus and near the gene encoding anti-mullerian hormone. Qiu et al.(2005) found that aberrant processing of pro-IGF2 by PC4 may be a cause of IUGR. PC4 cleaved pro-IGF2 to generate the intermediate processed form, IGF2(1-102). Mature IGF2(1-67), likely resulting from further processing by carboxypeptidases, is capable of activating invasive trophoblast cells through AKT phosphorylation. Inhibition of PC4 by a PC4-specific inhibitor blocked pro-IGF2 processing and reduced trophoblast cell migration.

Images



Anti-Proprotein convertase PC4 antibody, ABO11393, Western blottingAll lanes: Anti Proprotein convertase PC4 (ABO11393) at 0.5ug/mlWB: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 83KDObserved bind size: 83KD

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