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Datasheet for 600-401-FE0

THEM4 Antibody

Overview

Description:	Anti-THEM4 (RABBIT) Antibody - 600-401-FE0
Item No.:	600-401-FE0
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	THEM4, also known as CTMP, binds specifically to the carboxy-terminal regulatory domain of PKB/Akt at the plasma membrane and acts as a negative regulator, reversing the phenotype of v-Akt-transformed cells. Hypermethylation of the THEM4 promoter and transcriptional downregulation of the gene has been reported in multiple glioblastomas, suggesting that epigenetic regulation of THEM4 may play a role in the progression of this cancer. Bioinformatic analysis, confirmed by in vitro testing, indicates that THEM4 is a broad-range, high activity acyl-CoA thioesterase. Recent reports have also indicated that TMEM4 is a mitochondrial protein whose overexpression is associated with an increase in mitochondrial membrane depolarization and caspase-3 and PARP cleavage, suggesting that THEM4 is involved in the apoptotic program.
Synonyms:	THEM4 Antibody, CTMP, CTMP, Acyl-coenzyme A thioesterase THEM4, Carboxyl-terminal modulator protein, Acyl-CoA thioesterase THEM4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	THEM4
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-THEM4 antibody was prepared from whole rabbit serum produced by repeated immunizations with an 18 amino acid synthetic peptide near the internal region of human THEM4.
Purity/Specificity:	Anti-THEM4 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. The additional higher molecular weight bands seen in the immunoblot may represent post-translationally modified TMEM4.
Relevant Links:	• UniProtKB - Q5T1C6 • GeneID - 117145 • NCBI - NP_444283.2

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-THEM4 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 27 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:20,000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	1-2 µg/mL

Formulation

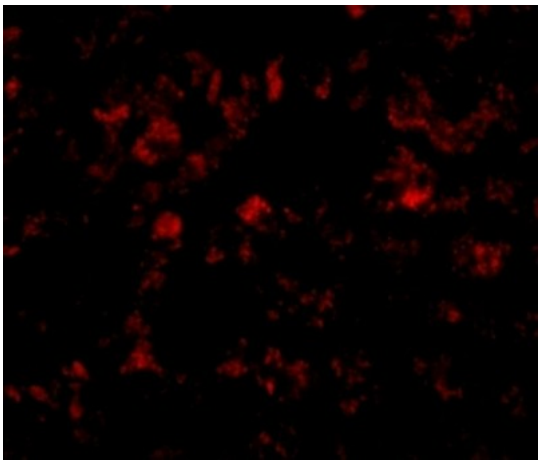
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

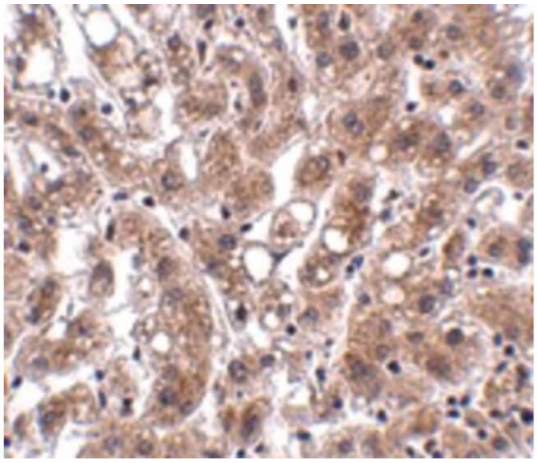
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

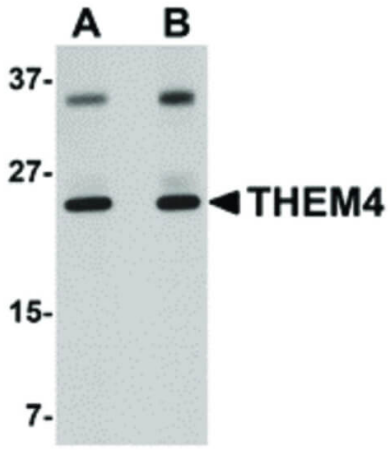
Images



Immunofluorescence Microscopy
Immunofluorescence of THEM4 in human liver tissue with THEM4 antibody at 20 µg/mL.



Immunohistochemistry
Immunohistochemistry of THEM4 antibody. Tissue: Human liver tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: THEM4 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: THEM4 is cytoplasmic. Staining: THEM4 as precipitated brown signal with purple nuclear counterstain.



Western Blot

Western Blot of THEM4 antibody. Lane 1: Human liver tissue lysate with THEM4 antibody at 1 µg/mL. Lane 2: Human liver tissue lysate with THEM4 antibody at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 27 kDa, 25 kDa for THEM4. Other band(s): THEM4 splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.