Datasheet for ABIN2778729

anti-CARS antibody (N-Term)

2 Images   **1** Publication

Overview

Quantity:	100 μL
Target:	CARS
Binding Specificity:	N-Term
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CARS antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	The immunogen is a synthetic peptide directed towards the N terminal region of human CARS
Sequence:	MQTPPLQQPH QEQVFLAFLV IVIPSFLTKE VFIPQDGKKV TWYCCGPTVY
Predicted Reactivity:	Human: 100%, Rat: 100%
Characteristics:	This is a rabbit polyclonal antibody against CARS. It was validated on Western Blot and immunohistochemistry.
Purification:	Affinity Purified

Target Details

Target:	CARS
Alternative Name:	CARS (CARS Products)

Target Details

Background:	CARS is a class 1 aminoacyl-tRNA synthetase, cysteinyl-tRNA synthetase. Each of the twenty aminoacyl-tRNA synthetases catalyzes the aminoacylation of a specific tRNA or tRNA isoaccepting family with the cognate amino acid. This gene is one of several located near the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. Western blots using two different antibodies against two unique regions of this protein target confirm the same apparent molecular weight in our tests.This gene encodes a class 1 aminoacyl-tRNA synthetase, cysteinyl-tRNA synthetase. Each of the twenty aminoacyl-tRNA synthetases catalyzes the aminoacylation of a specific tRNA or tRNA isoaccepting family with the cognate amino acid. This gene is one of several located near the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. Alias Symbols: CARS1, CYSRS, MGC:11246 Protein Interaction Partner: UBC, DNM1L, CAND1, LUC7L2, THUMPD3, JMJD6, XPO7, FAF1, SEC23A, SEC24D, HIRIP3, HIST1H4A, TTC1, TROVE2, SHMT1, PPM1G, PPAT, PAWR, KARS, IDE, HSPA4, GFPT1, GART, GARS, APEH, APP, SUMO2, PACSIN1, PACSIN3, PACSIN2, PSTPIP1, EEF1G, Protein Size: 738
Molecular Weight:	81 kDa
Gene ID:	833
NCBI Accession:	NM_001014438, NP_001014438

Application Details

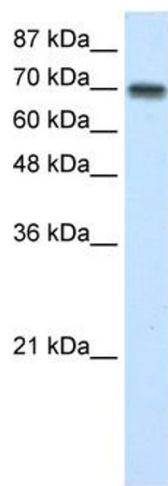|	
Application Notes:	Optimal working dilutions should be determined experimentally by the investigator.
Comment:	Antigen size: 738 AA
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	Lot specific

Handling

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Buffer:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

Publications

Product cited in:	Sun, Zhou, Liu, Zhang, Chen, Pan, Ma, Liu, Du, Yang, Wang: "Inhibition of breast cancer cell survival by Xanthohumol via modulation of the Notch signaling pathway in vivo and in vitro." in: **Oncology letters**, Vol. 15, Issue 1, pp. 908-916, (2018) (PubMed).

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Meng, Su, Liu, Wang, Wang: "Rac1 contributes to cerebral ischemia reperfusion-induced injury in mice by regulation of Notch2." in: **Neuroscience**, Vol. 306, pp. 100-14, (2015) (PubMed).

Ma, Mao, Shen, Zheng, Li, Liu, Ni: "Atractylenolide I-mediated Notch pathway inhibition attenuates gastric cancer stem cell traits." in: **Biochemical and biophysical research communications**, Vol. 450, Issue 1, pp. 353-9, (2014) (PubMed).

Asnaghi, Lin, Lim, Lim, Tripathy, Wendeborn, Merbs, Handa, Sodhi, Bar, Eberhart: "Hypoxia promotes uveal melanoma invasion through enhanced Notch and MAPK activation." in: **PLoS ONE**, Vol. 9, Issue 8, pp. e105372, (2014) (PubMed).

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Images

Western Blotting

Image 1. WB Suggested Anti-CARS Antibody Titration: 0.2-1 ug/ml Positive Control: HepG2 cell lysate
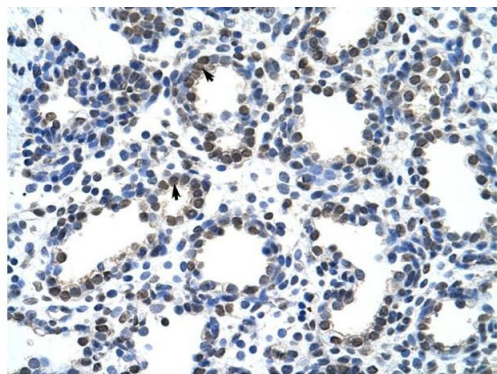
Rabbit Anti-CARS Antibody
Catalog Number: ARP40297
Lot Number: QC10261
Paraffin Embeded Tissue: Human Lung
Cells with Positive label: Alveolar cells (Indicated with Arrows)
Antibody Concentration: 4.0-8.0 μg/ml
Magnification: 400X

Immunohistochemistry

Image 2. Rabbit Anti-CARS Antibody Paraffin Embedded Tissue: Human Lung Cellular Data: Alveolar cells Antibody Concentration: 4.0-8.0 ug/ml Magnification: 400X