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ENSA Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10456c

Product Information

Application	WB, FC, E
Primary Accession	O43768
Other Accession	Q7ZXH9, P60841, P68211, P60840, Q1L8X2, Q5ZIF8, P68210, NP_996927.1, NP_996929.1
Reactivity	Human, Mouse
Predicted	Bovine, Chicken, Zebrafish, Pig, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19622
Calculated MW	13389
Antigen Region	39-66

Additional Information

Gene ID	2029
Other Names	Alpha-endosulfine, ARPP-19e, ENSA
Target/Specificity	This ENSA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 39-66 amino acids from the Central region of human ENSA.
Dilution	WB~~1:1000 FC~~1:10~50 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	ENSA Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ENSA
Function	Protein phosphatase inhibitor that specifically inhibits protein phosphatase 2A (PP2A) during mitosis. When phosphorylated at Ser-67 during mitosis,

	specifically interacts with PPP2R2D (PR55-delta) and inhibits its activity, leading to inactivation of PP2A, an essential condition to keep cyclin-B1-CDK1 activity high during M phase (By similarity). Also acts as a stimulator of insulin secretion by interacting with sulfonylurea receptor (ABCC8), thereby preventing sulfonylurea from binding to its receptor and reducing K(ATP) channel currents.
Cellular Location	Cytoplasm.
Tissue Location	Widely expressed with high levels in skeletal muscle and brain and lower levels in the pancreas

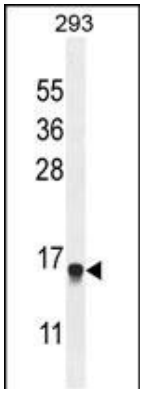
Background

ENSA belongs to a highly conserved cAMP-regulated phosphoprotein (ARPP) family. This protein was identified as an endogenous ligand for the sulfonylurea receptor, ABCC8/SUR1. ABCC8 is the regulatory subunit of the ATP-sensitive potassium (KATP) channel, which is located on the plasma membrane of pancreatic beta cells and plays a key role in the control of insulin release from pancreatic beta cells. This protein is thought to be an endogenous regulator of KATP channels. In vitro studies have demonstrated that this protein modulates insulin secretion through the interaction with KATP channel, and this gene has been proposed as a candidate gene for type 2 diabetes.

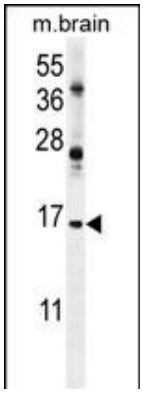
References

Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Gabrielsson, B.G., et al. Mol. Cell. Biochem. 258 (1-2), 65-71 (2004) :
Thameem, F., et al. Mol. Genet. Metab. 81(1):16-21(2004)

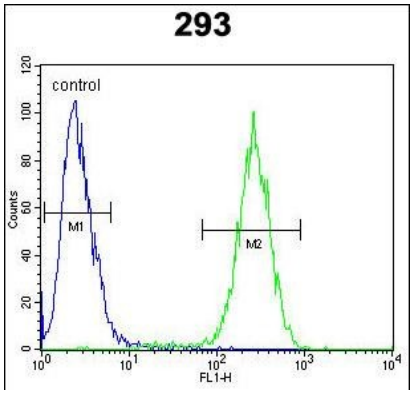
Images



ENSA Antibody (Center) (Cat. #AP10456c) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the ENSA antibody detected the ENSA protein (arrow).



ENSA Antibody (Center) (Cat. #AP10456c) western blot analysis in mouse brain tissue lysates (35ug/lane).This demonstrates the ENSA antibody detected the ENSA protein (arrow).



ENSA Antibody (Center) (Cat. #AP10456c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.