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DAGLA Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10260C

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9Y4D2
Other Accession	Q5YLM1, Q6WQJ1, NP_006124.1
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	114952
Antigen Region	317-345

Additional Information

Gene ID	747
Other Names	Sn1-specific diacylglycerol lipase alpha, DGL-alpha, 311-, Neural stem cell-derived dendrite regulator, DAGLA, C11orf11, KIAA0659, NSDDR
Target/Specificity	This DAGLA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 317-345 amino acids from the Central region of human DAGLA.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	DAGLA Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DAGLA
Synonyms	C11orf11, KIAA0659, NSDDR {ECO:0000303|R
Function	Serine hydrolase that hydrolyzes arachidonic acid-esterified diacylglycerols

(DAGs) to produce the principal endocannabinoid, 2- arachidonoylglycerol (2-AG) (PubMed:14610053, PubMed:23502535, PubMed:26668358). Preferentially hydrolyzes sn-1 fatty acids from diacylglycerols (DAG) that contain arachidonic acid (AA) esterified at the sn-2 position to biosynthesize 2-AG (PubMed:14610053, PubMed:23502535, PubMed:26668358). Has negligible activity against other lipids including monoacylglycerols and phospholipids (PubMed:14610053). Plays a key role in regulating 2-AG signaling in the central nervous system (CNS). Regulates 2-AG involved in retrograde suppression at central synapses. Supports axonal growth during development and adult neurogenesis. Plays a role for eCB signaling in the physiological regulation of anxiety and depressive behaviors. Also regulates neuroinflammatory responses in the brain, in particular, LPS- induced microglial activation (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Postsynaptic density membrane; Multi-pass membrane protein. Early endosome membrane; Multi-pass membrane protein. Cell projection, dendritic spine membrane {ECO:0000250|UniProtKB:Q6WQJ1}; Multi-pass membrane protein. Note=Cycles between the cell surface and an intracellular endosomal compartment. Internalized by early endosomes via a clathrin-independent pathway before transport back to the postsynaptic membrane surface in a PKC-dependent manner

Tissue Location

Highly expressed in brain and pancreas.

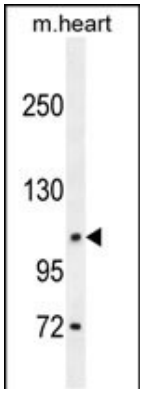
Background

This gene encodes a diacylglycerol lipase. The encoded enzyme is involved in the biosynthesis of the endocannabinoid 2-arachidonoyl-glycerol.

References

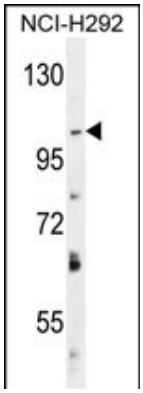
Knight, M.A., et al. Hum. Mol. Genet. 17(24):3847-3853(2008)
Jung, K.M., et al. Mol. Pharmacol. 68(5):1196-1202(2005)
Bisogno, T., et al. J. Cell Biol. 163(3):463-468(2003)

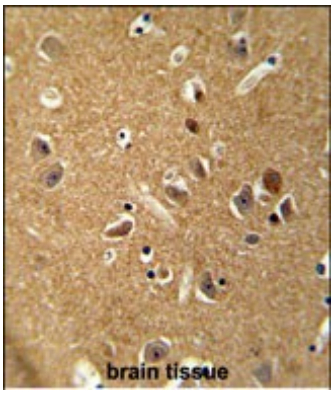
Images



DAGLA Antibody (Center) (Cat. #AP10260c) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the DAGLA antibody detected the DAGLA protein (arrow).

DAGLA Antibody (Center) (Cat. #AP10260c) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the DAGLA antibody detected the DAGLA protein (arrow).





DAGLA antibody (Center) (Cat. #AP10260c) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DAGLA antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.