SANTA CRUZ BIOTECHNOLOGY, INC.

DAGLβ (P-14): sc-133304

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The Power to Question

BACKGROUND

Members of the AB hydrolase superfamily have diverse catalytic functions and play a crucial role in the metabolism of lipids. DAGLβ (diacylglycerol lipase beta), also known as KCCR13L, is a 672 amino acid multi-pass membrane protein that belongs to the AB hydrolase superfamily. DAGLβ uses calcium as a cofactor to catalyze the hydrolysis of diacylglycerol (DAG) to 2-arachidonoyl-glycerol (2-AG), a reaction that is required for axonal growth and for retrograde synaptic signaling at mature synapses. DAGLβ functions at an optimal pH of 7 and its activity is inhibited by p-hydroxy-mercuri-benzoate and HgCl2, but not PMSF. There are three isoforms of DAGLβ that are produced as a result of alternative splicing events.

REFERENCES

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2. Nakajima, D., et al. 2002. Construction of expression-ready cDNA clones for KIAA genes: manual curation of 330 KIAA cDNA clones. DNA Res. 9: 99-106.
3. Bisogno, T., et al. 2003. Cloning of the first sn1-DAG lipases points to the spatial and temporal regulation of endocannabinoid signaling in the brain. J. Cell Biol. 163: 463-468.
4. Ligresti, A., et al. 2005. Endocannabinoid metabolic pathways and enzymes. Curr. Drug Targets CNS Neurol. Disord. 4: 615-623.
5. Jung, K.M., et al. 2005. Stimulation of endocannabinoid formation in brain slice cultures through activation of group I metabotropic glutamate receptors. Mol. Pharmacol. 68: 1196-1202.
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CHROMOSOMAL LOCATION

Genetic locus: DAGLB (human) mapping to 7p22.1; Daglb (mouse) mapping to 5 G2.

SOURCE

DAGLβ (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of DAGLβ of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133304 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DAGLβ (P-14) is recommended for detection of DAGLβ isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with DAGLβ isoform 3.

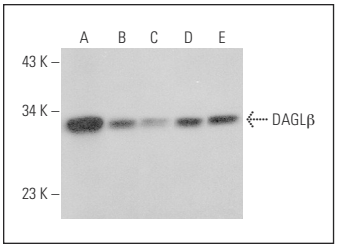
DAGLβ (P-14) is also recommended for detection of DAGLβ isoforms 1 and 2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for DAGLβ siRNA (h): sc-89591, DAGLβ siRNA (m): sc-142867, DAGLβ shRNA Plasmid (h): sc-89591-SH, DAGLβ shRNA Plasmid (m): sc-142867-SH, DAGLβ shRNA (h) Lentiviral Particles: sc-89591-V and DAGLβ shRNA (m) Lentiviral Particles: sc-142867-V.

Molecular Weight of DAGLβ: 74/43/29 kDa.

Positive Controls: mouse cerebellum extract: sc-2403, HEK293 whole cell lysate: sc-45136 or Jurkat whole cell lysate: sc-2204.

DATA



DAGLβ (P-14): sc-133304. Western blot analysis of DAGLβ expression in mouse cerebellum tissue extract (**A**) and HEK293 (**B**), HeLa (**C**), Jurkat (**D**) and K-562 (**E**) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.