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CDKL5 Rabbit pAb

Catalog # AP99451

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O76039
Other Accession	O76039
Predicted	Rat, Pig, Human, Mouse, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	107519
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CDKL5
Epitope Specificity	401-500/1030
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain.
SUBUNIT	Interacts with MECP2.
Post-translational modifications	Autophosphorylated.
DISEASE	Note=Chromosomal aberrations involving CDKL5 are found in patients manifesting early-onset seizures and spams and psychomotor impairment. Translocation t(X;6)(p22.3;q14); translocation t(X;7)(p22.3;p15). Defects in CDKL5 are a cause of epileptic encephalopathy early infantile type 2 (EIEE2) [MIM:300672]; also known as atypical CDKL5-related Rett syndrome. EIEE2 is a severe form of epilepsy characterized by seizures or spasms beginning in infancy. Patients manifest features resembling Rett syndrome such as microcephaly, lack of speech development, stereotypic hand movements.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cell cycle progression is controlled in part by a family of cyclin proteins and cyclin-dependent kinases (Cdks). Cdk proteins work in concert with the cyclins to phosphorylate key substrates involved in each phase of cell cycle progression. Another family of proteins, Cdk inhibitors, also plays a role in regulating the cell cycle by binding to cyclin-Cdk complexes and modulating their activity. CDKL5 (cyclin-dependent kinase-like 5) is a 1030 amino acid protein that belongs to the CMGC Ser/Thr protein kinase family. Expressed in brain, lung, kidney, prostate, ovary, placenta, pancreas and testis, CDKL5 is thought to play a role in cell cycle regulation. Defects in CDKL5 are a cause of several disorders, such as X-linked infantile spasm syndrome and Rett syndrome.

Additional Information

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Gene ID	
Other Names	CFAP247; DEE2; EIEE2; ISSX; STK9; CDKL5_HUMAN; CDKL5; Serine/threonine-protein kinase 9; 2.7.11.22; CDKL5_MOUSE; cyclin dependent kinase like 5; serine/threonine kinase 9; cyclin-dependent kinase-like 5
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CDKL5 (HGNC:11411)
Synonyms	STK9
Function	Mediates phosphorylation of MECP2 (PubMed: 15917271, PubMed:16935860). May regulate ciliogenesis (PubMed:29420175).
Cellular Location	Nucleus. Cytoplasm, cytoskeleton, cilium basal body Cytoplasm, cytoskeleton, microtubule organizing center, centrosome
Tissue Location	Expressed in brain, lung, kidney, prostate, ovary, placenta, pancreas and testis

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.